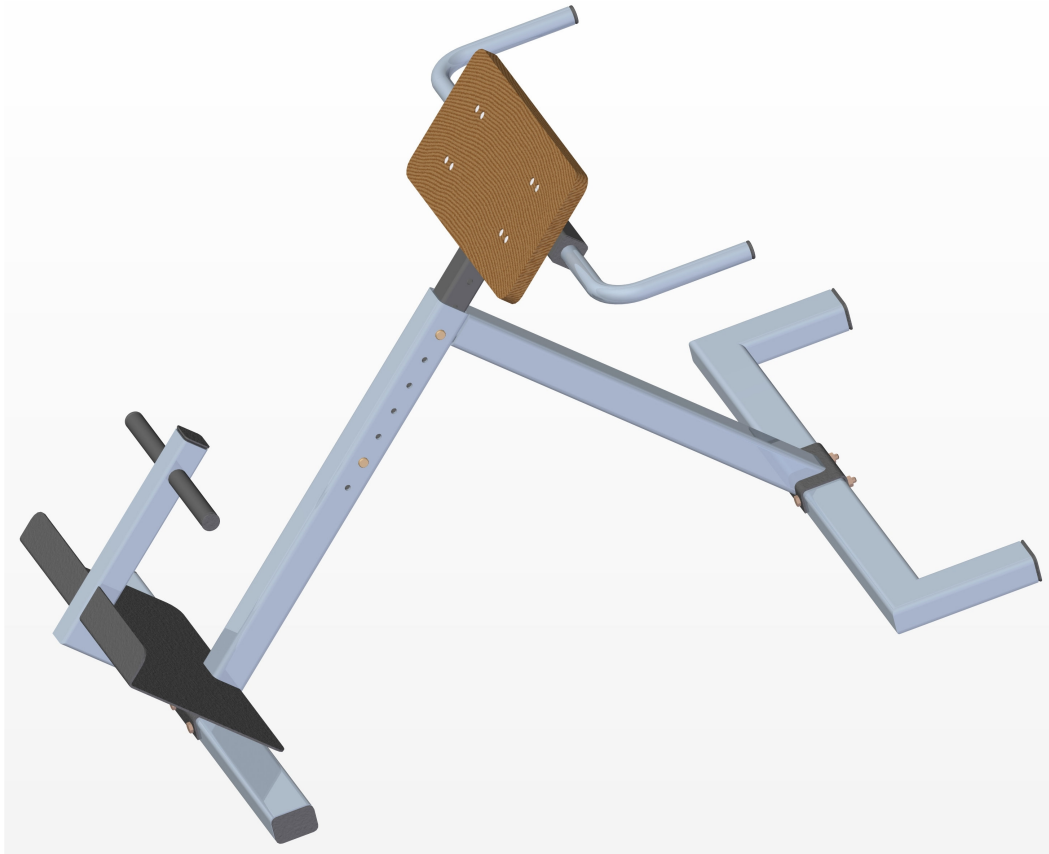


Back Extension Bench



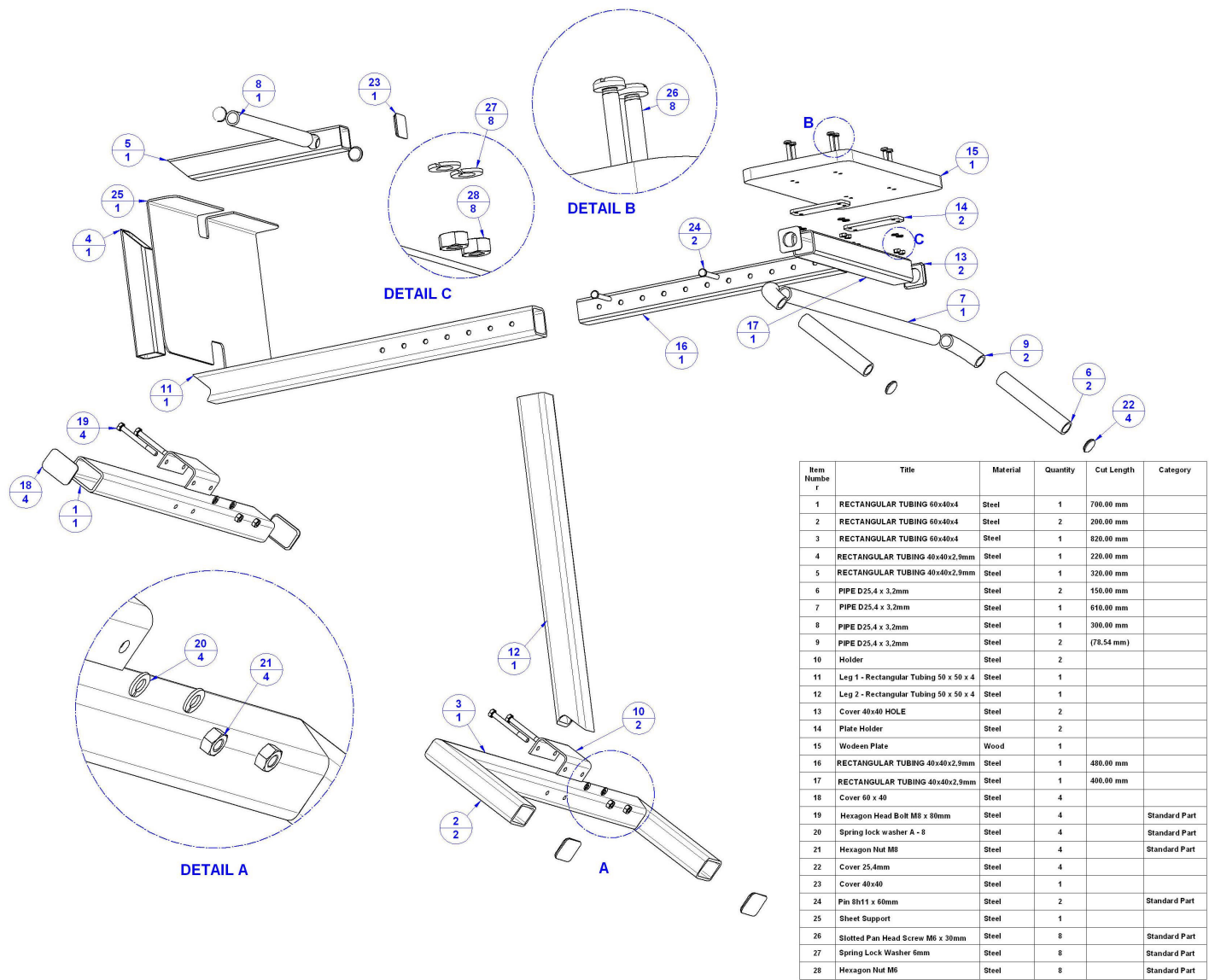
NOTE: The measurements within this text and 2D documentation are given both in millimeters and inches (in brackets). This website is based on ISO measurement unit system, which is the international standard. I apologize to the people who use other measurement units; but I believe that measurements given in millimeters and inches should be adequate for everyone who would like to build this project.

Besides that, on today's Internet it is easy to purchase the ruler containing all the measurement units and overcome the difficulties of any kind.

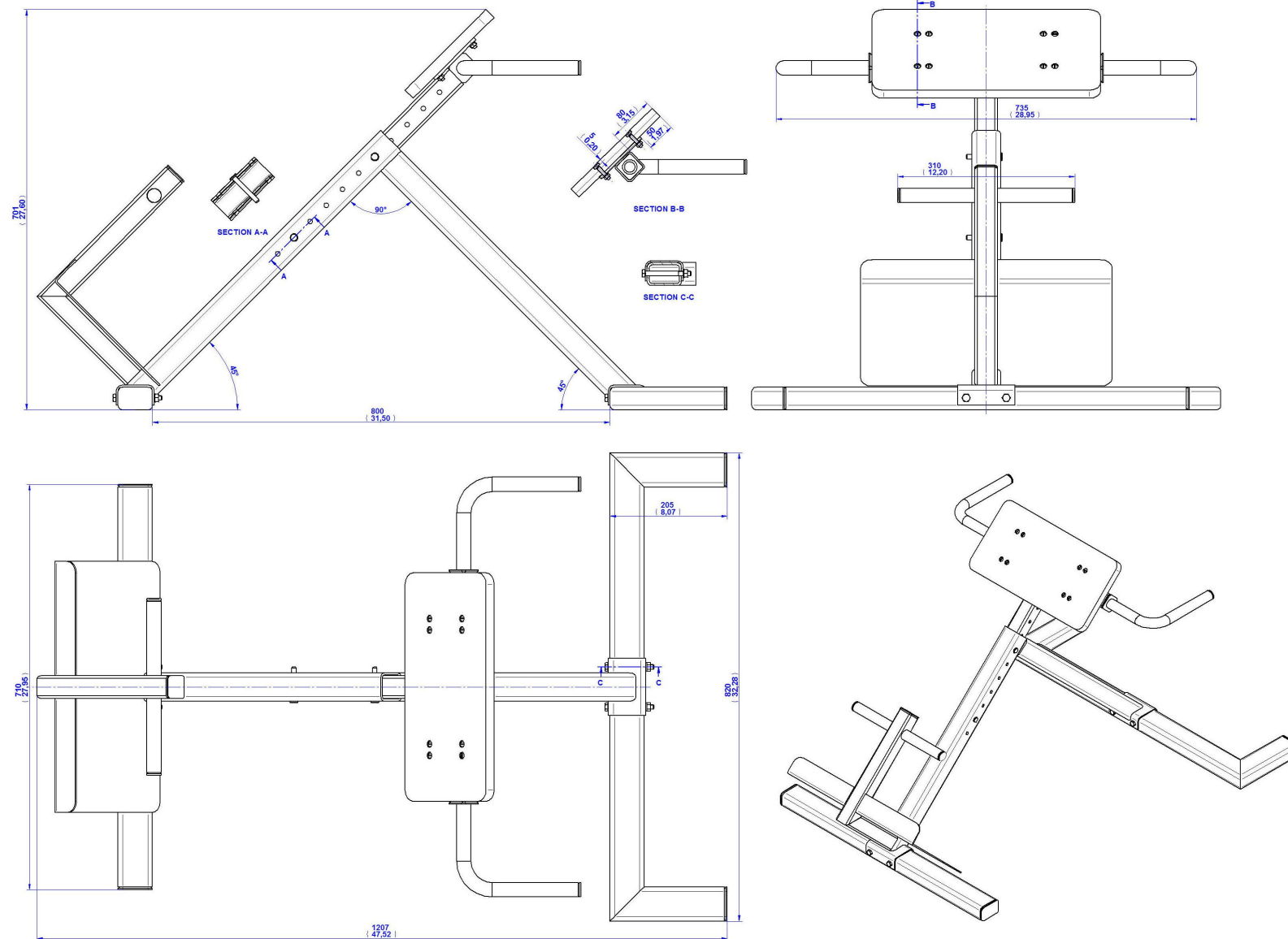
Use various tools and clamps in process of welding, so you could weld the items together with accuracy.

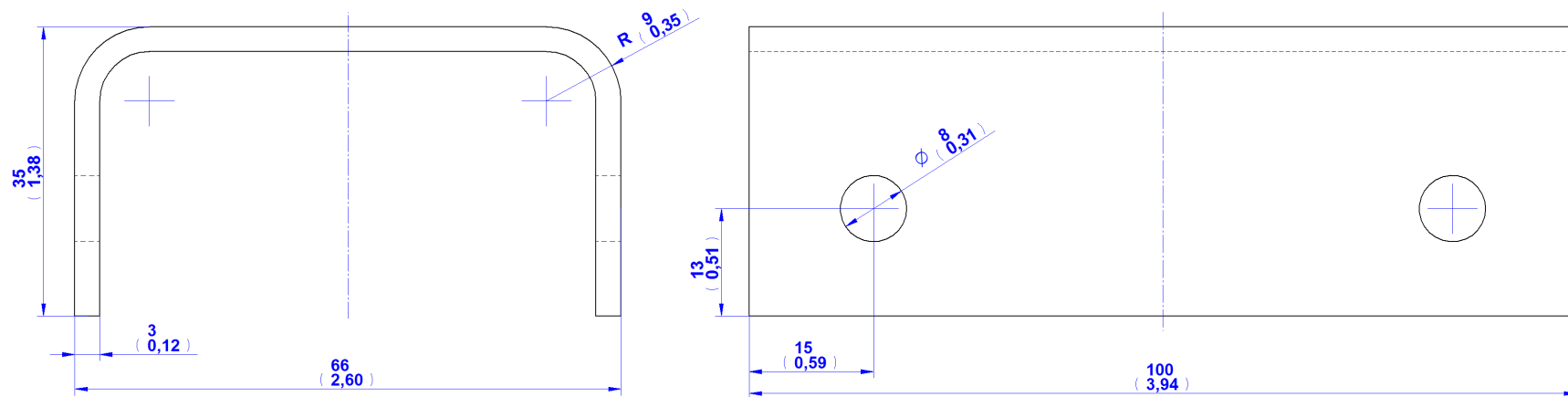
Make the components as given on drawings.

Parts List

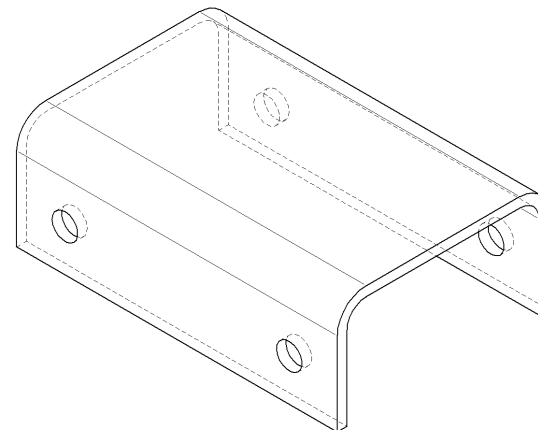


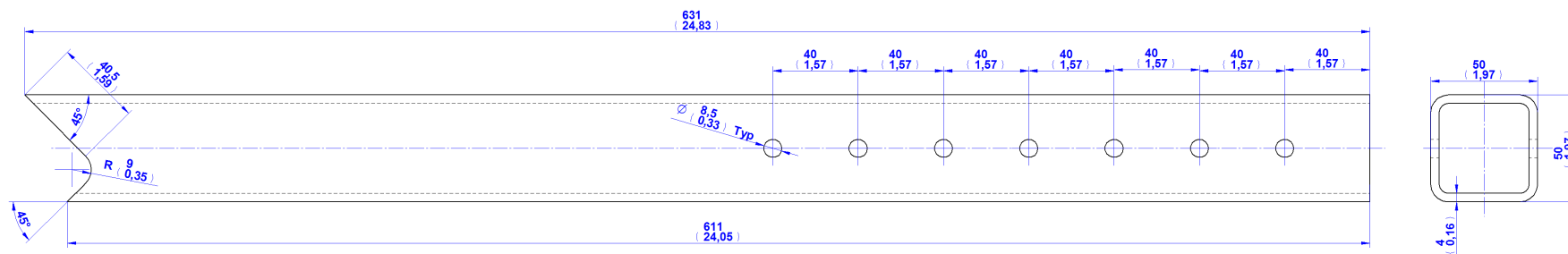
2D Documentation



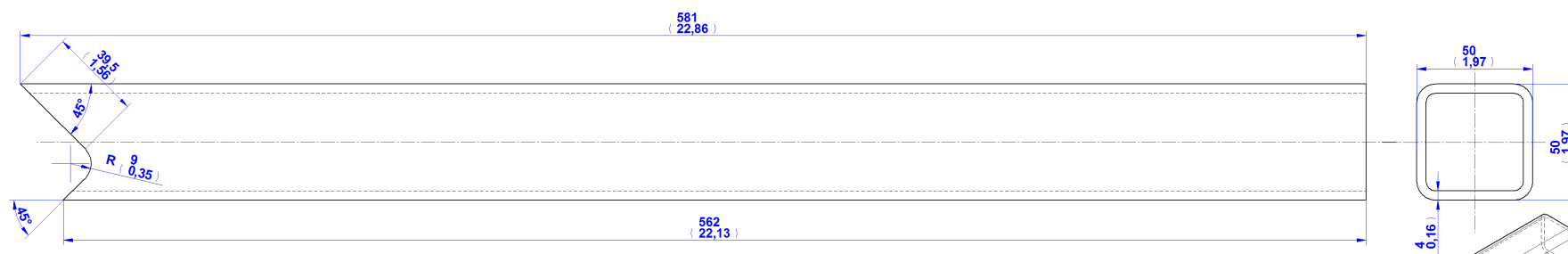
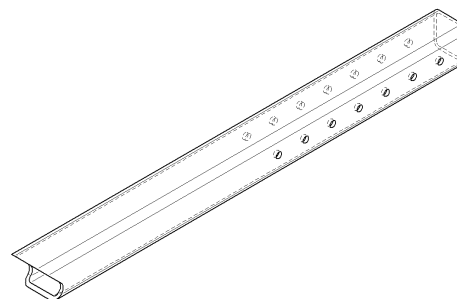


10. Holder

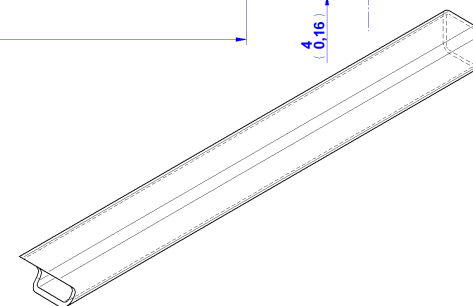


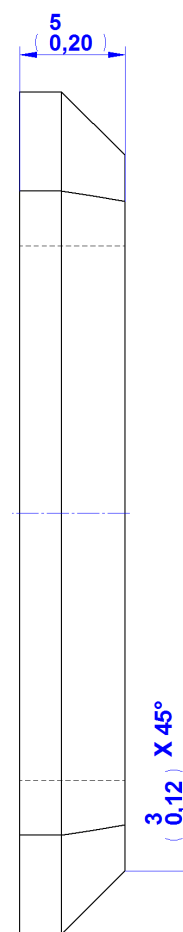
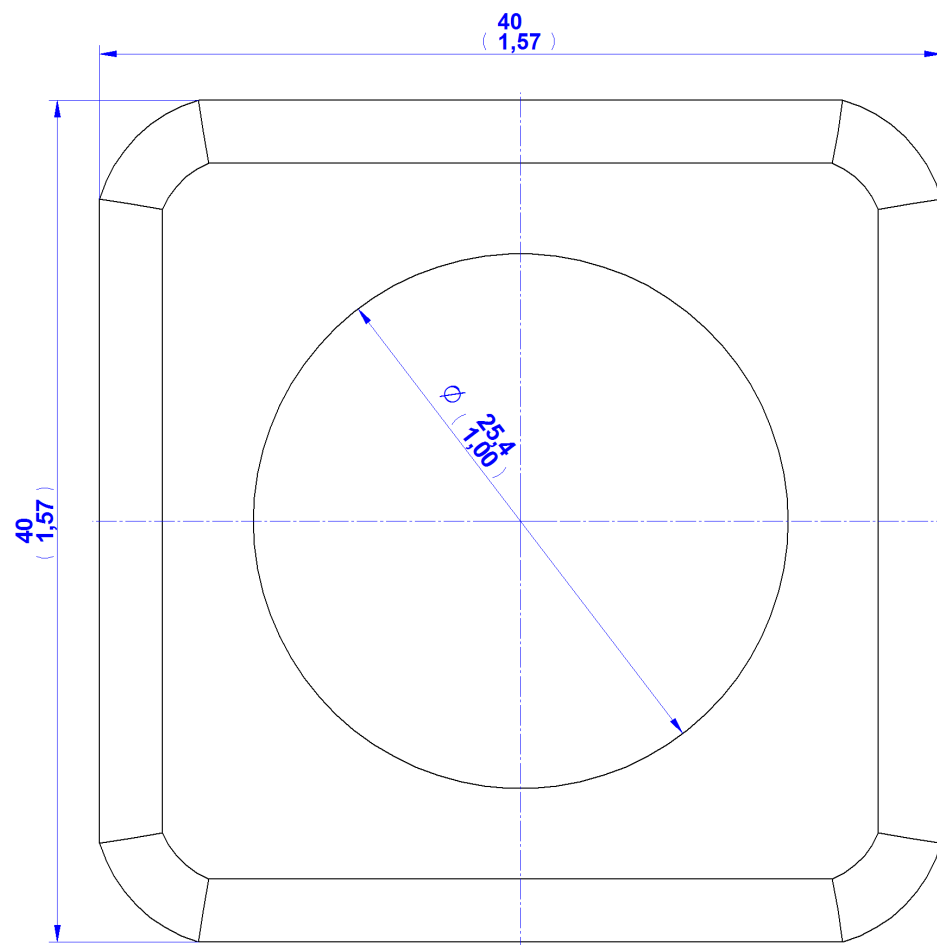


11. Leg 1 – Rectangular Tubing 50 x 50 x 4

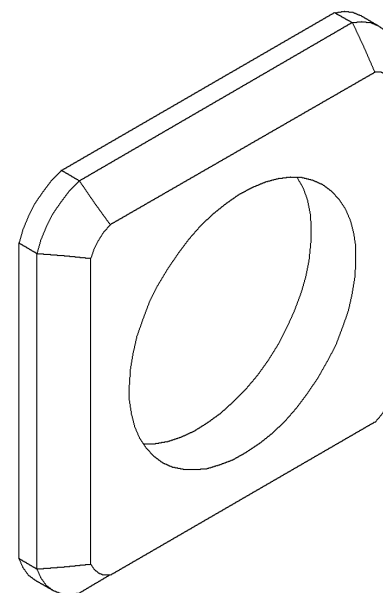


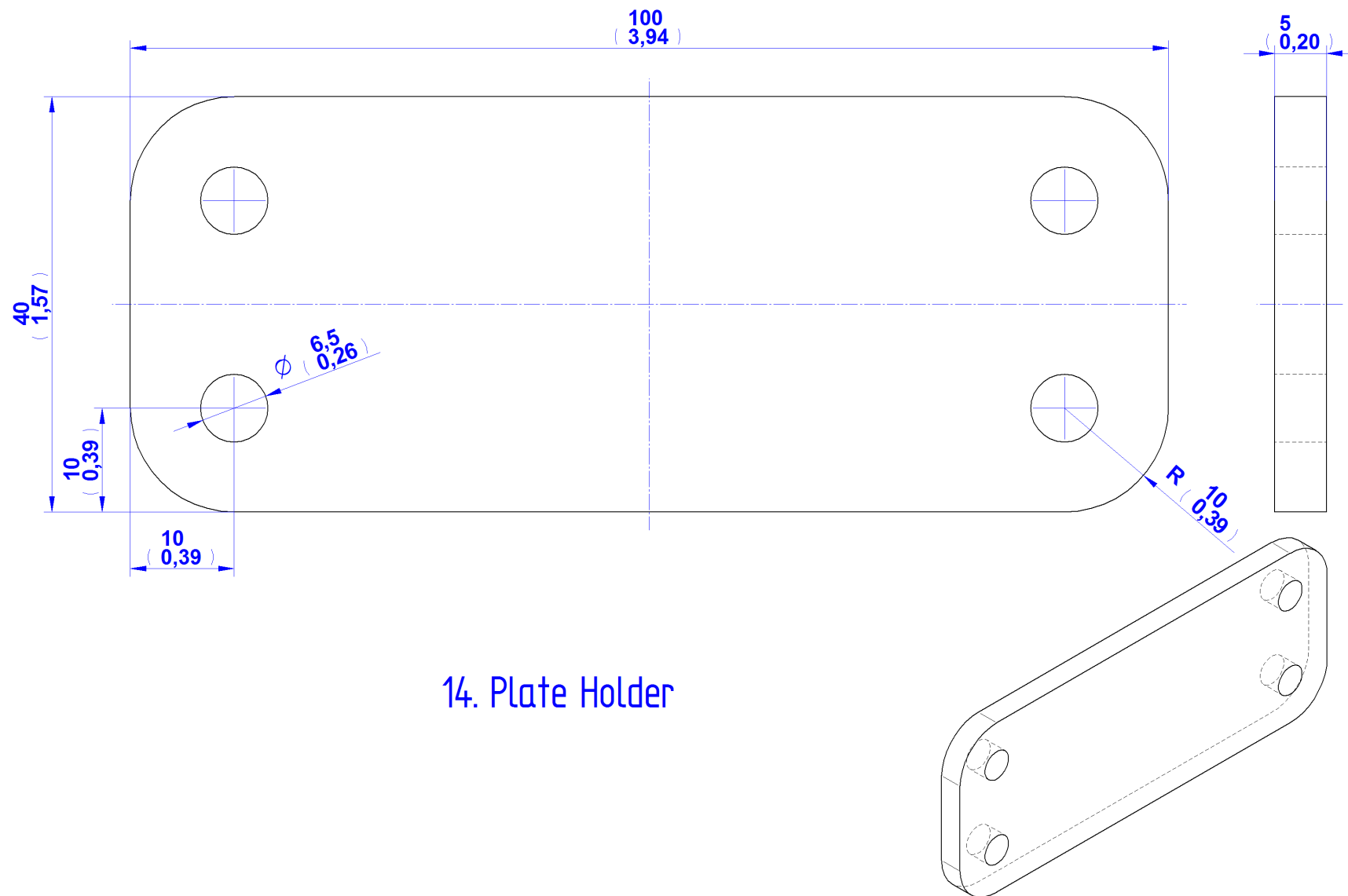
12. Leg 2 – Rectangular Tubing 50 x 50 x 4



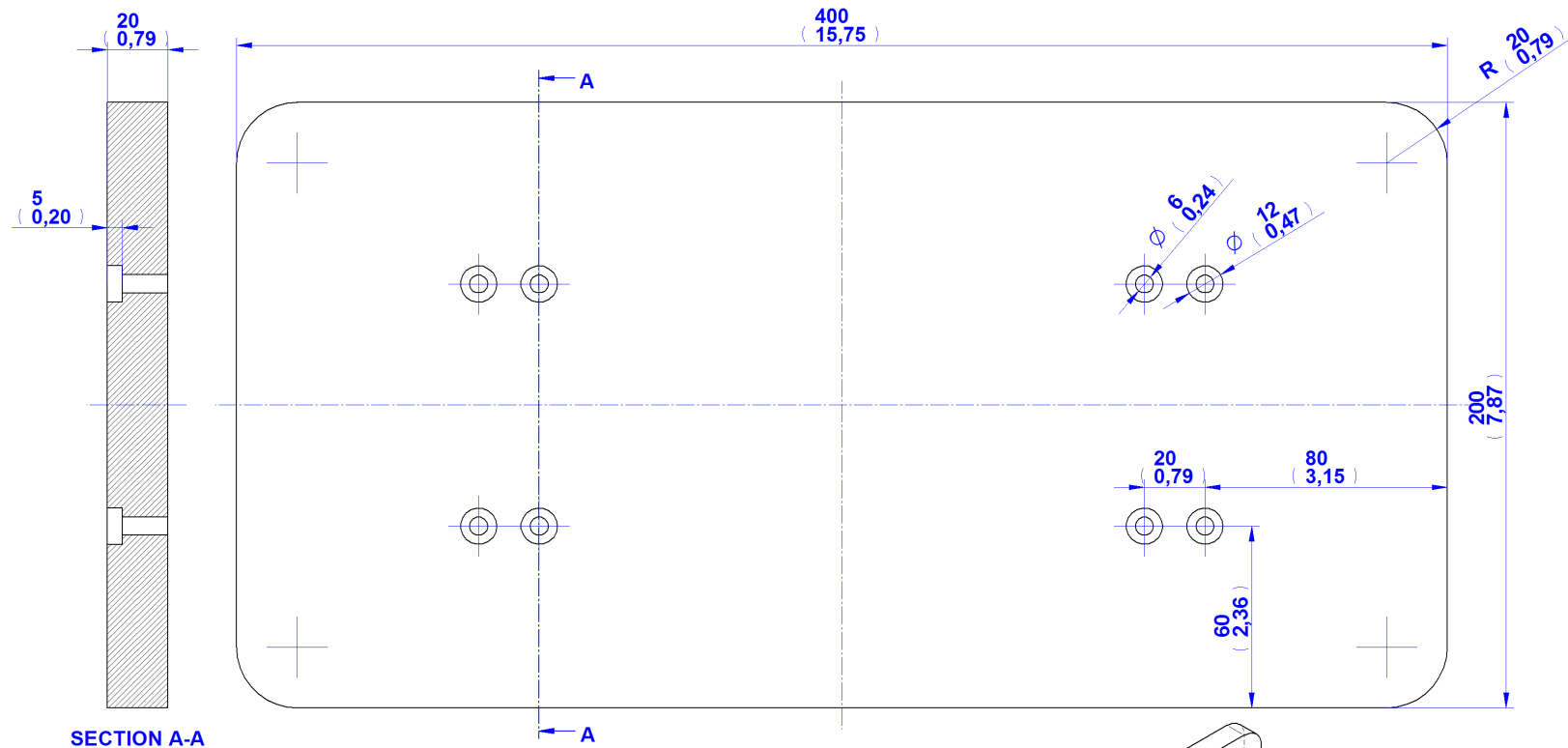


13. Cover 40 x 40mm HOLE

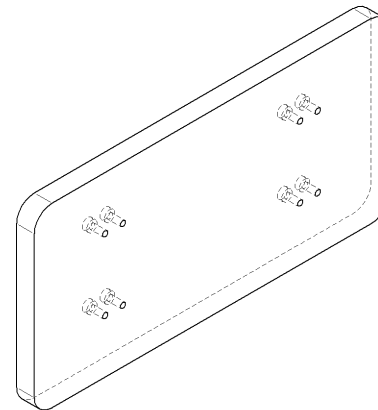


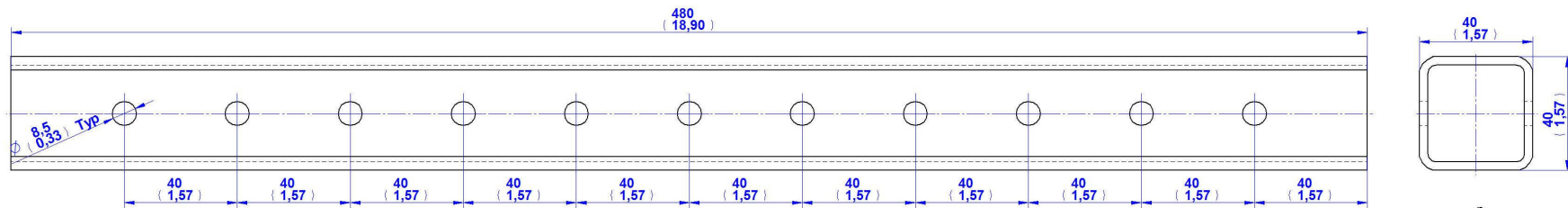


14. Plate Holder

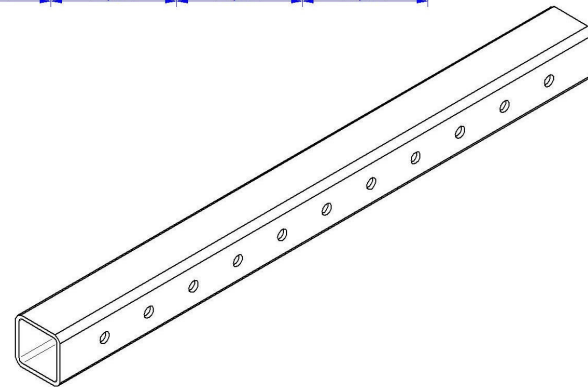


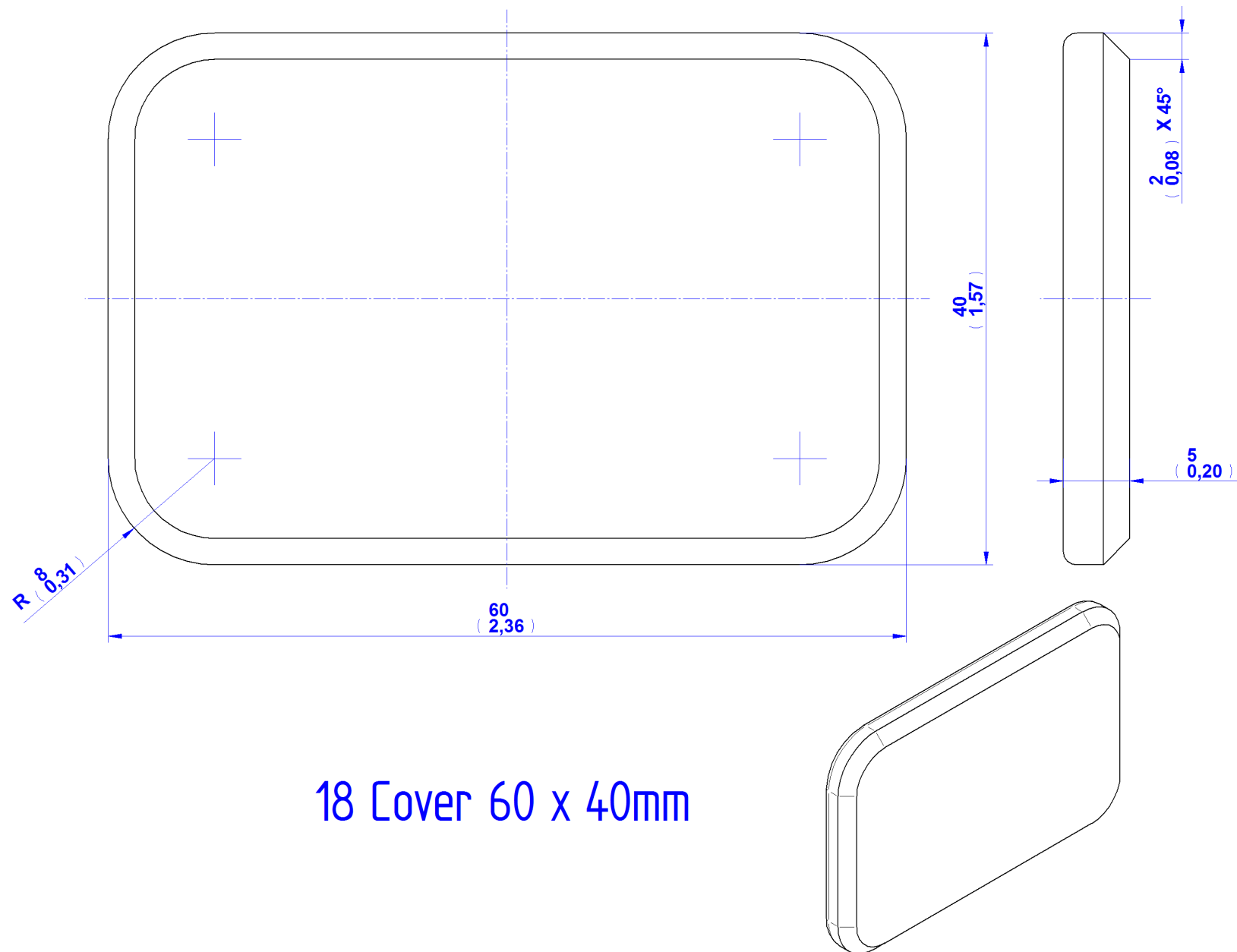
15. Wooden Plate

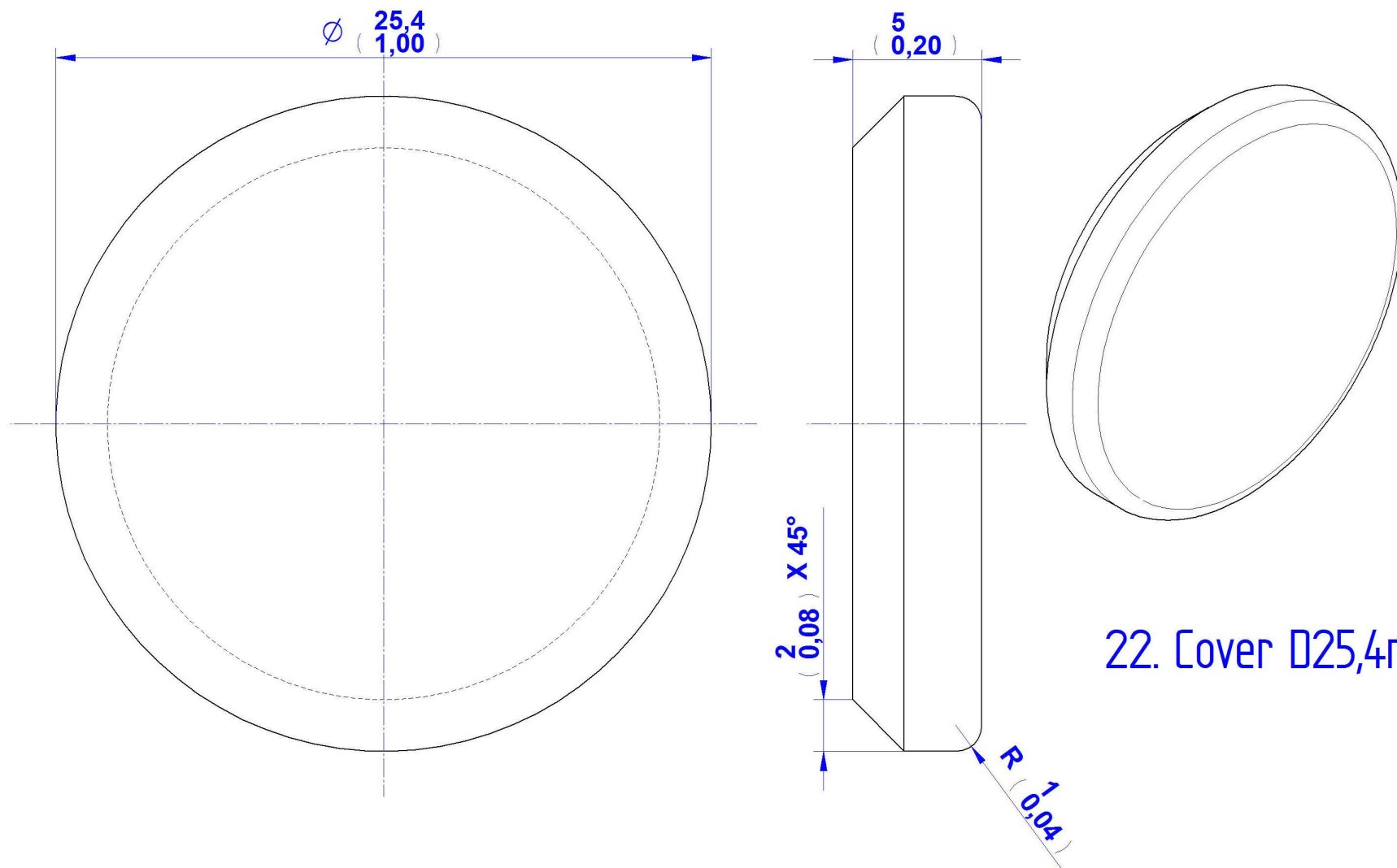




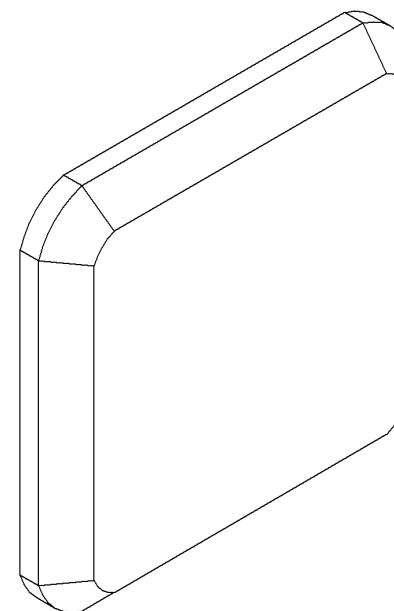
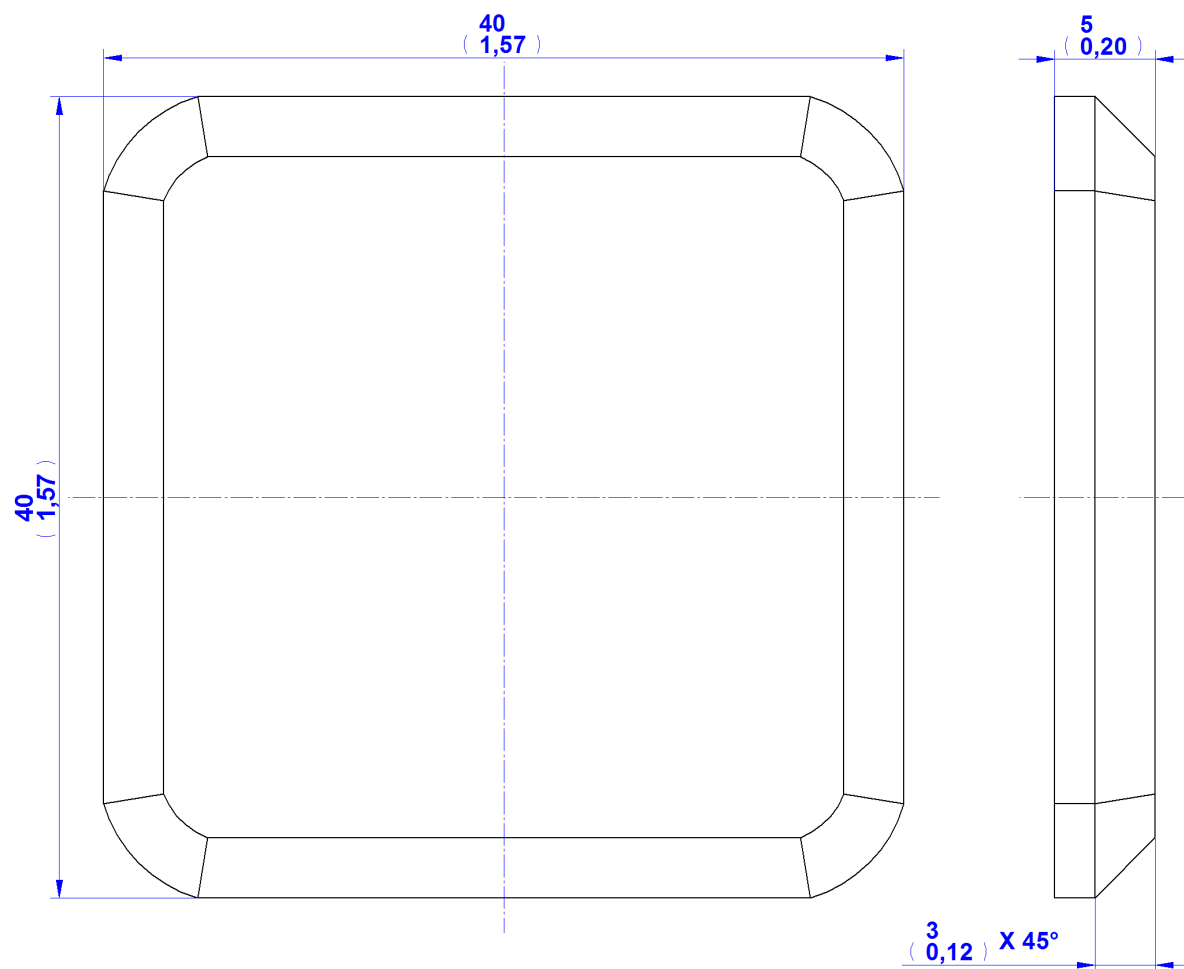
16. Rectangular Tubing 40 x 40 x 2,9mm
Cut Length = 480,00mm



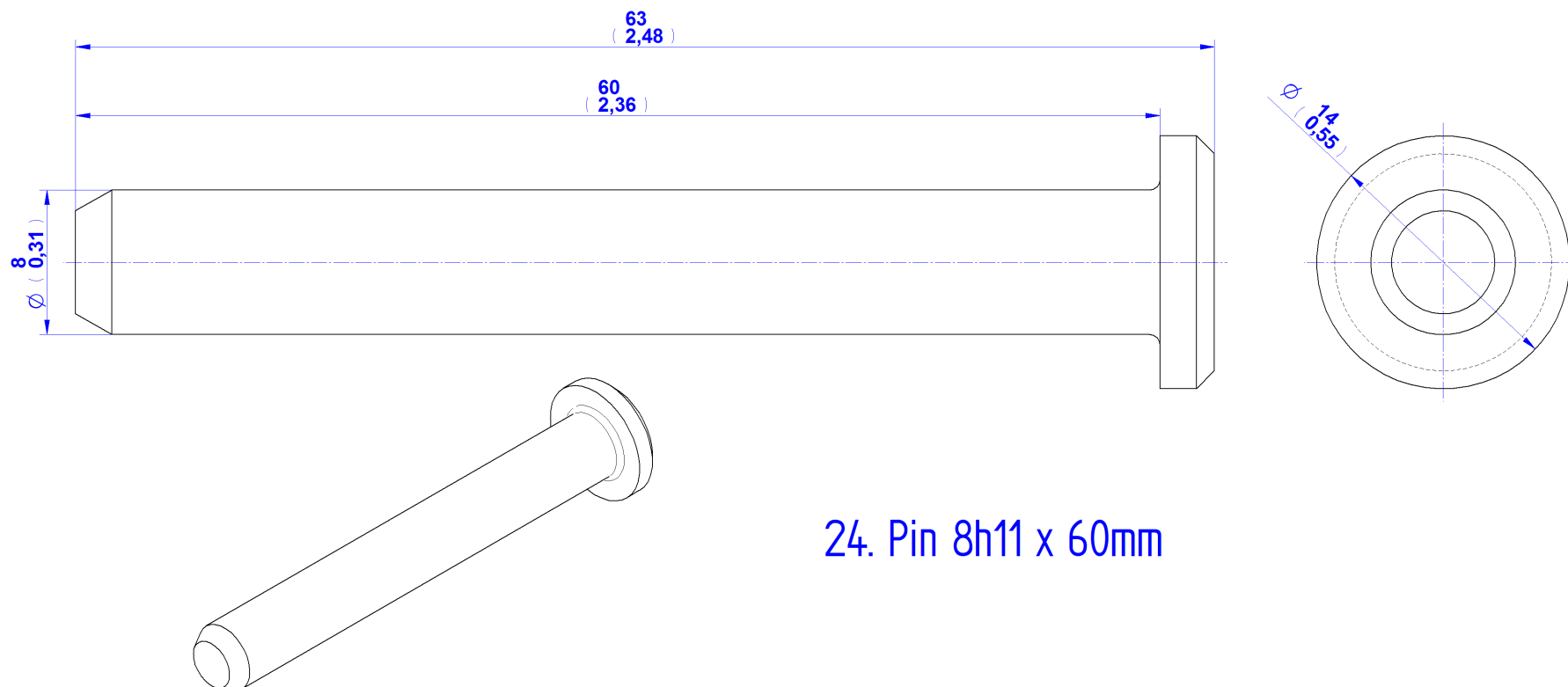




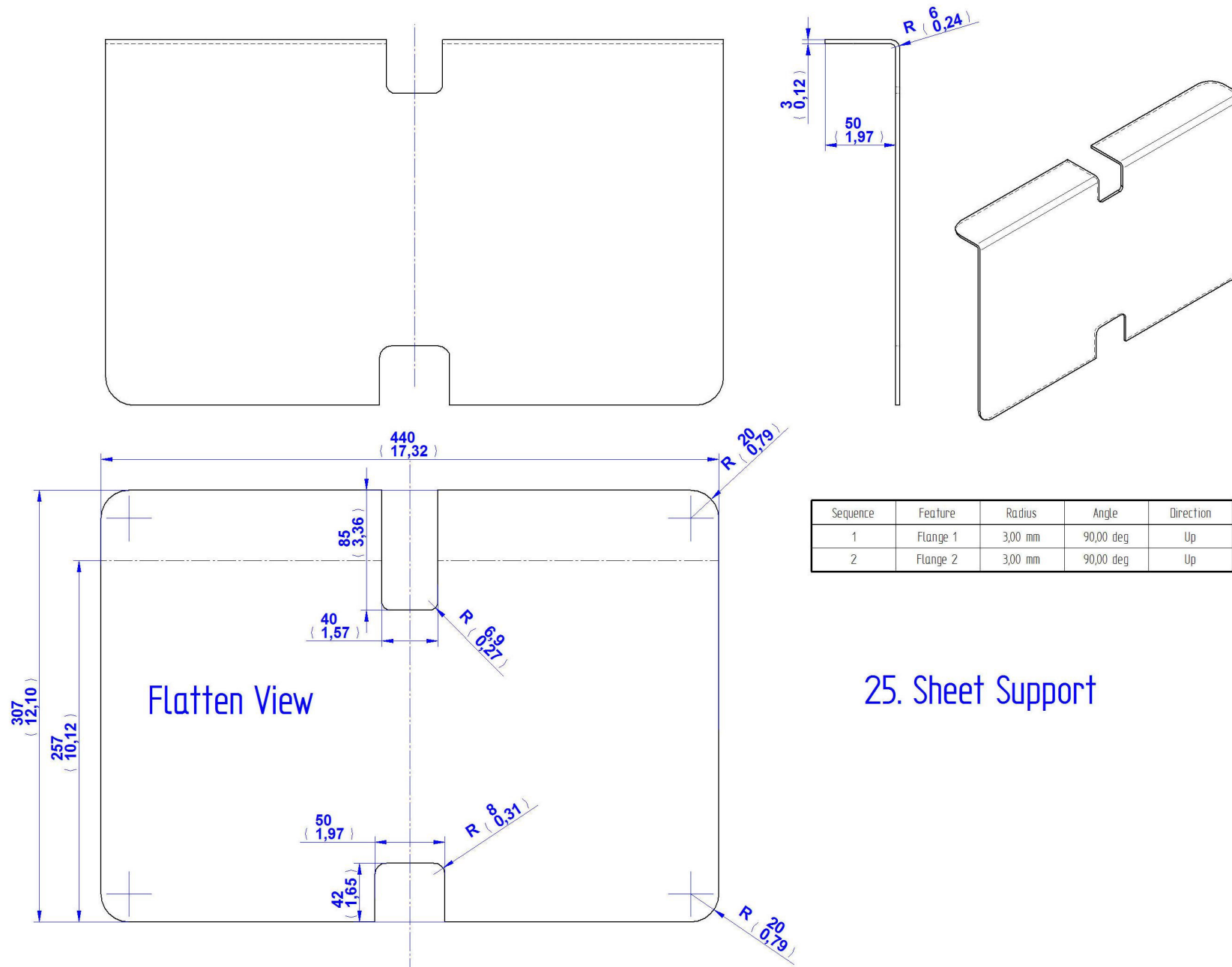
22. Cover D25,4mm



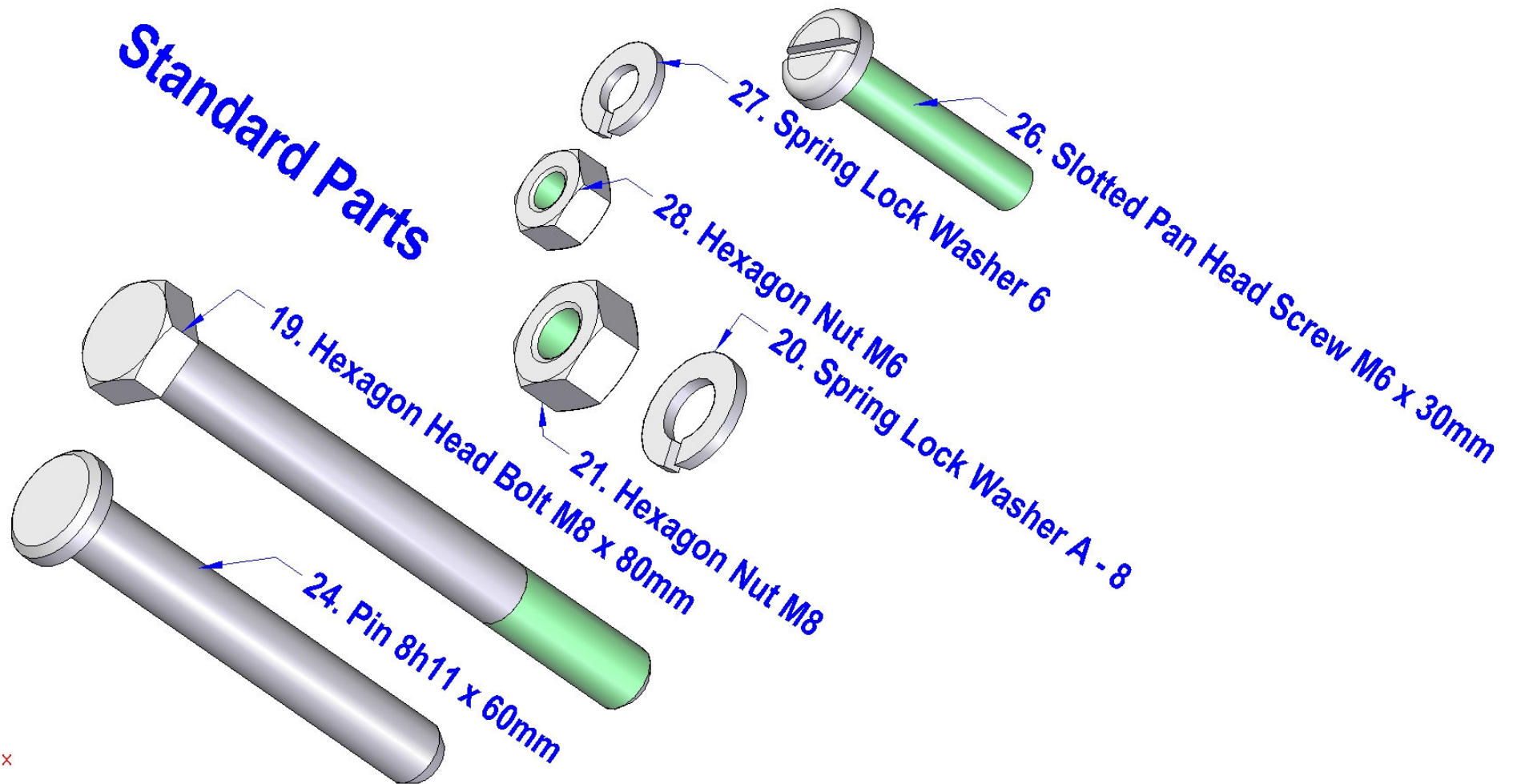
23. Cover 40 x 40mm



24. Pin 8h11 x 60mm

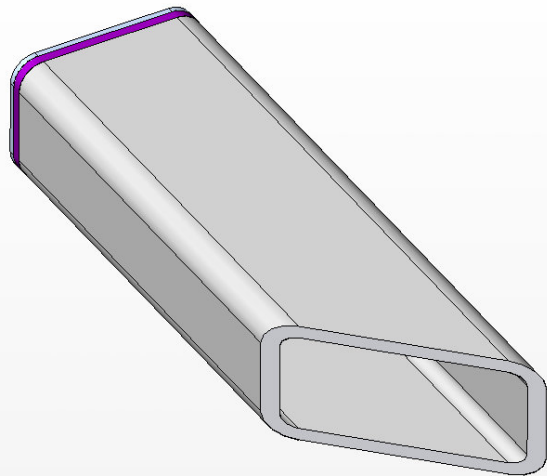
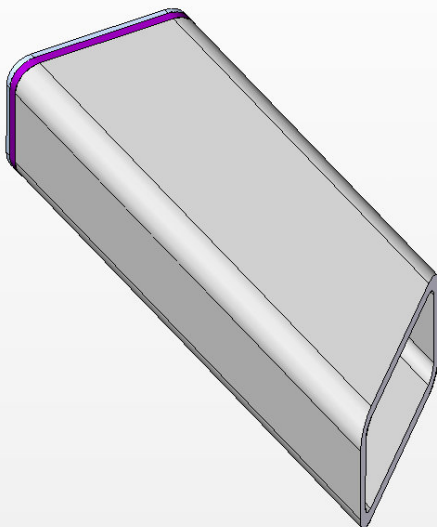
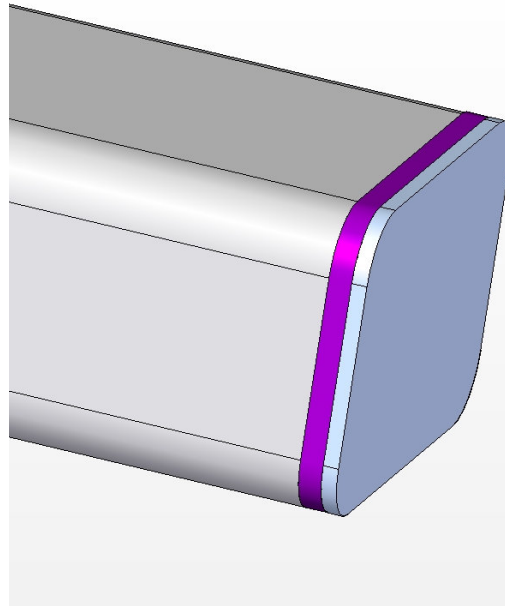
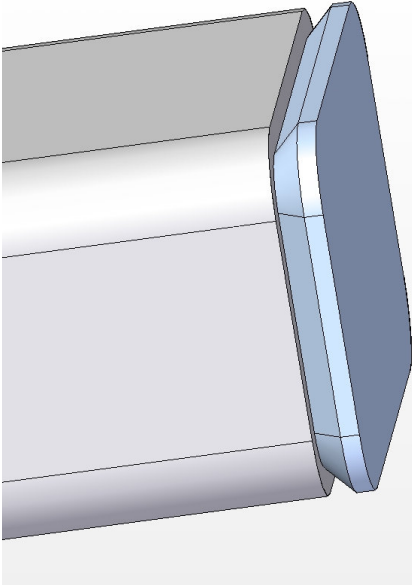


Standard Parts

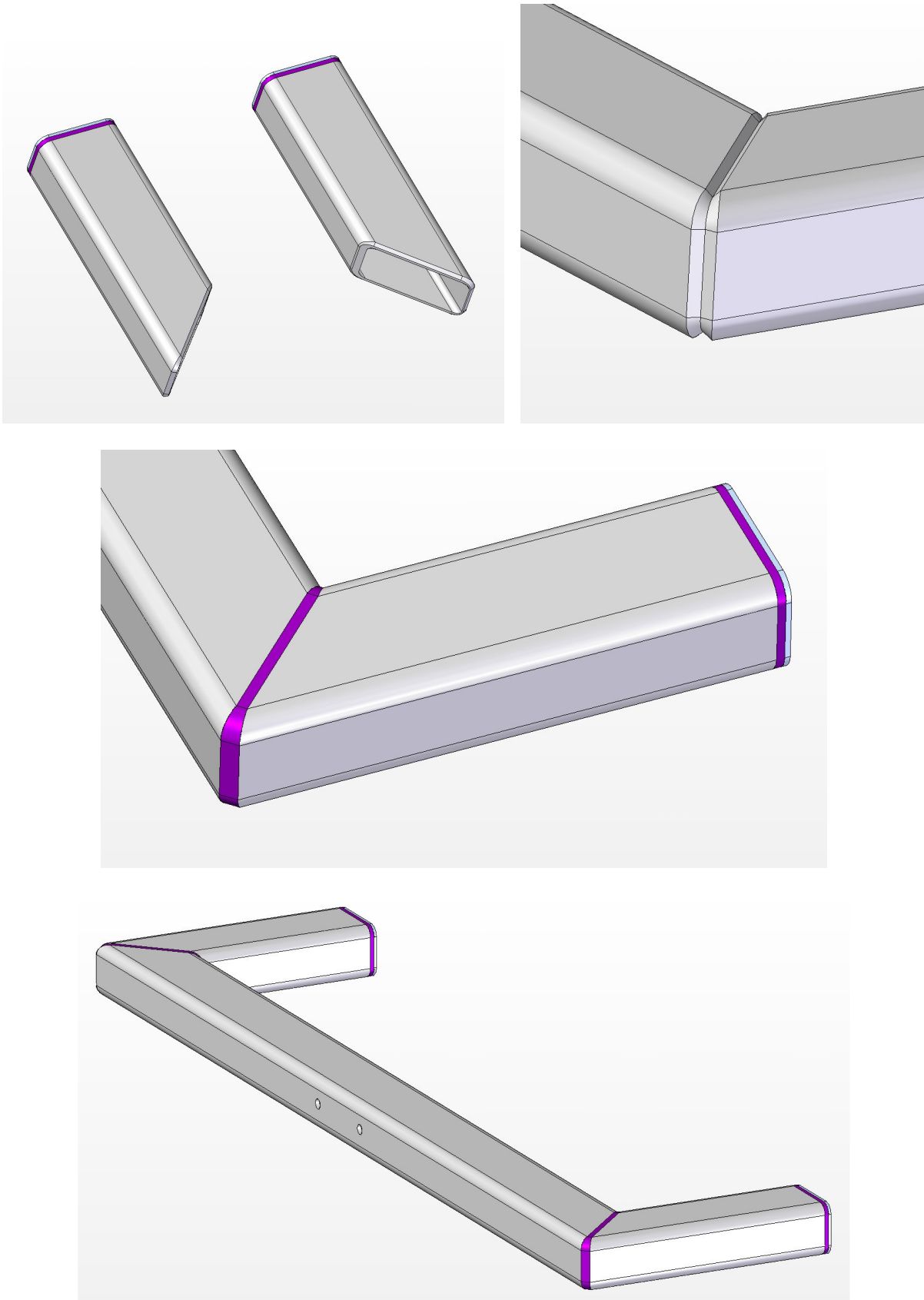


Assemblage Instruction

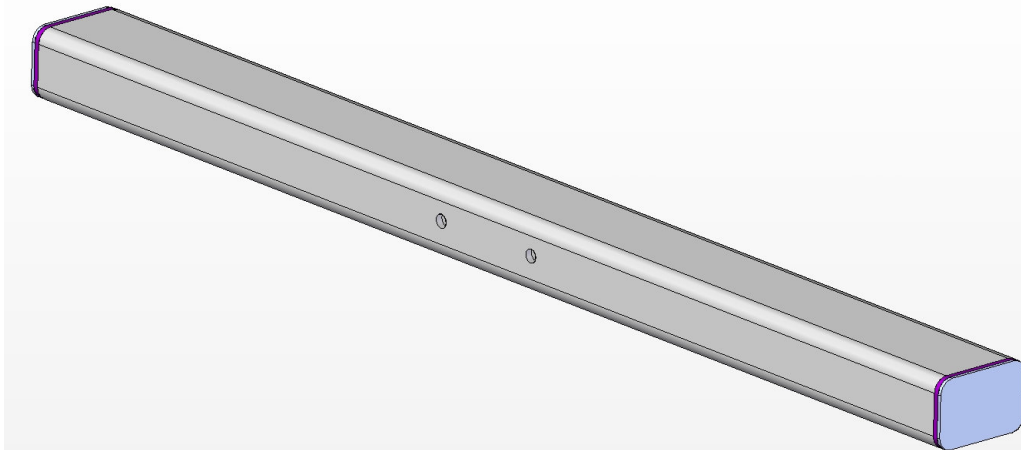
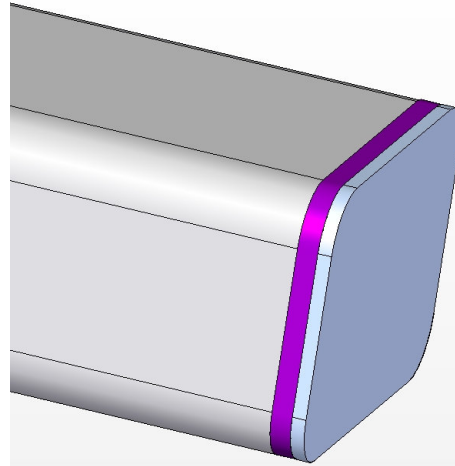
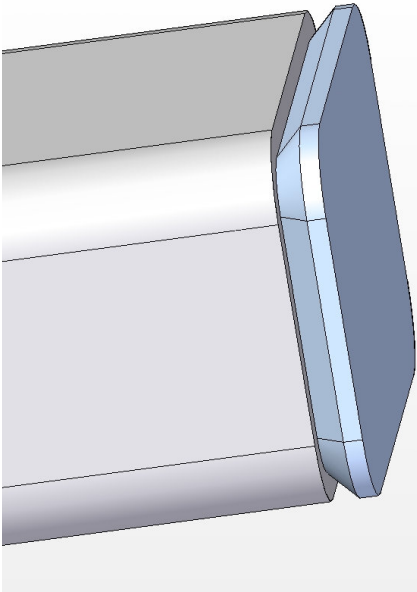
1. Weld the **Cover 60x40** (items 18) to the ends of **Rectangular Tubing 60x40x4, Cut Length 200mm** (items 2).



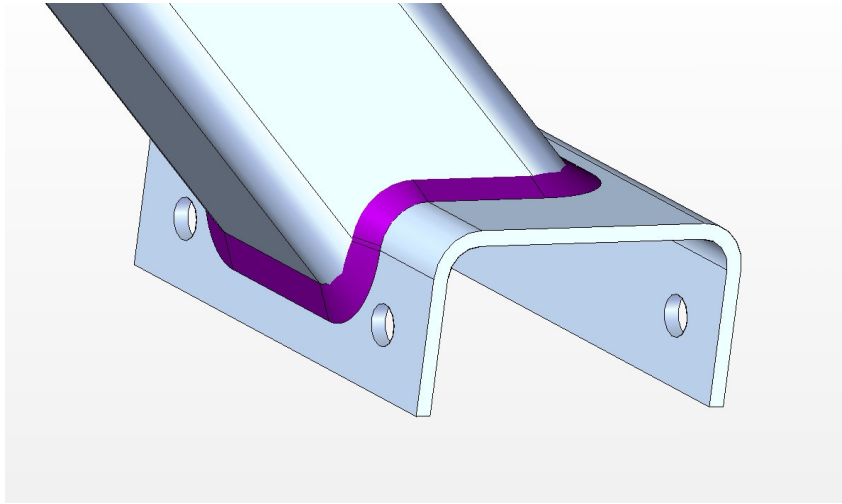
Chamfer the opposite edges of the **Rectangular Tubing 60x40x4, Cut Length 200mm** (items 2) and both ends of the **Rectangular Tubing 60x40x4, Cut Length 820mm** (item 3). Weld the **Rectangular Tubing 60x40x4, Cut Length 200mm** (item 2) and **Rectangular Tubing 60x40x4, Cut Length 820mm** (item 3) together.



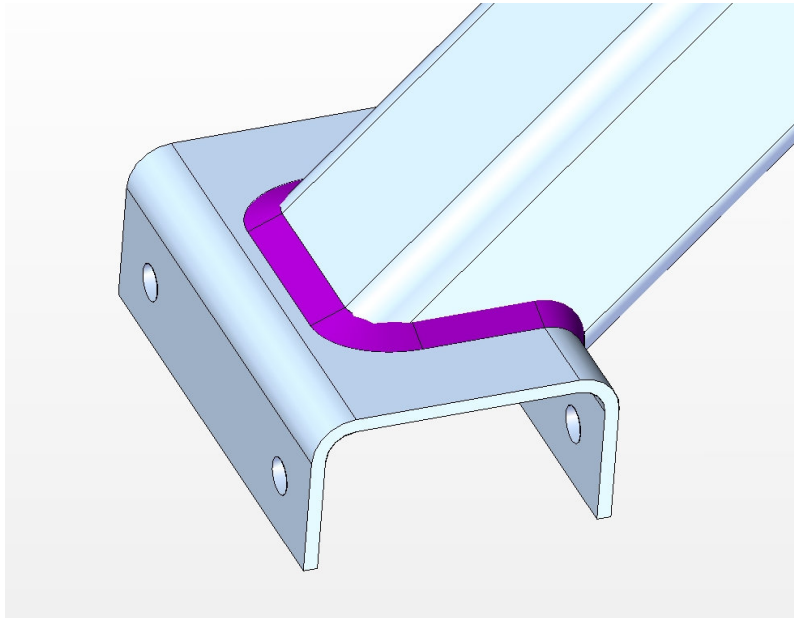
2. Weld the **Cover 60x40** (item 18) to the **Rectangular Tubing 60x40x4, Cut Length 700mm** (item 1).



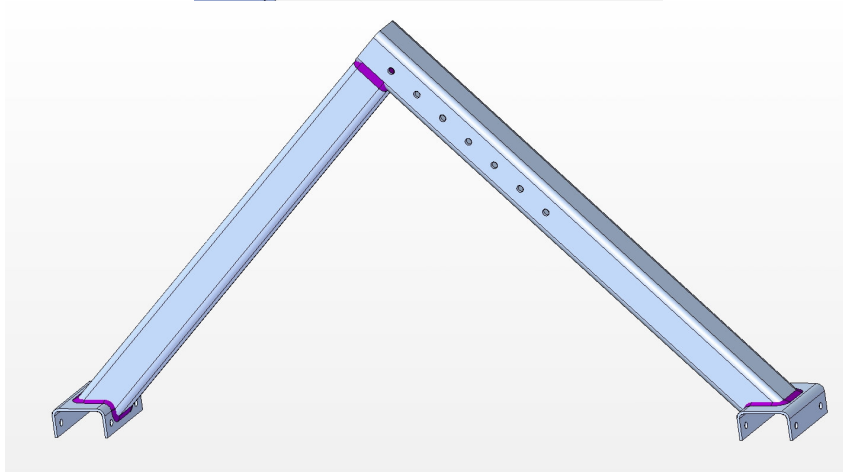
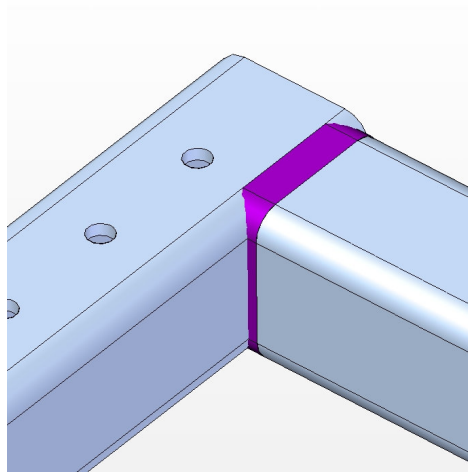
3. Weld the **Holder** (item 10) to the **Leg 1 – Rectangular Tubing 50x50x4** (item 11).



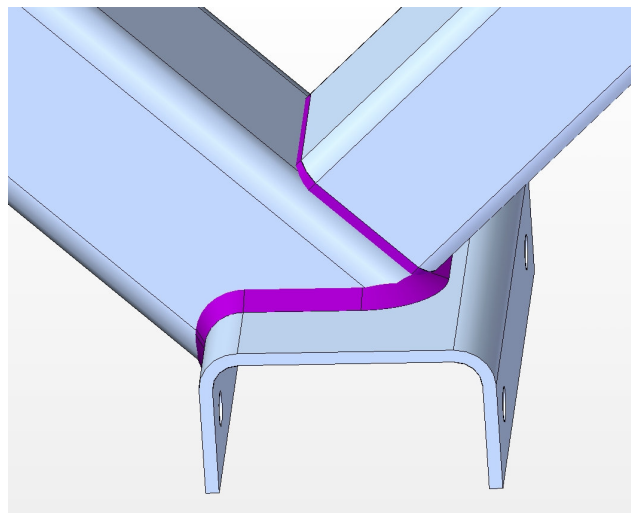
4. Weld the **Holder** (item 10) to the **Leg 2 – Rectangular Tubing 50x50x4** (item 12).

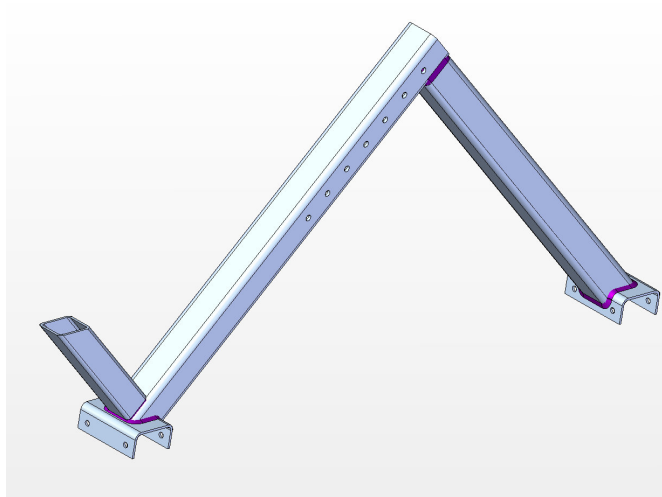


5. Weld together the subassemblies made in previous two steps.

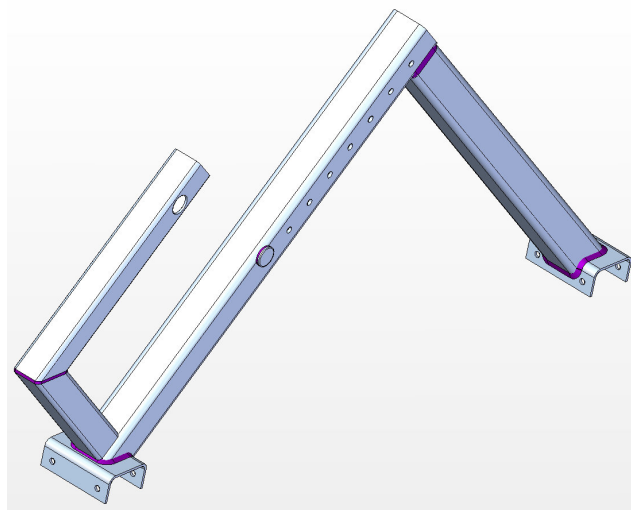
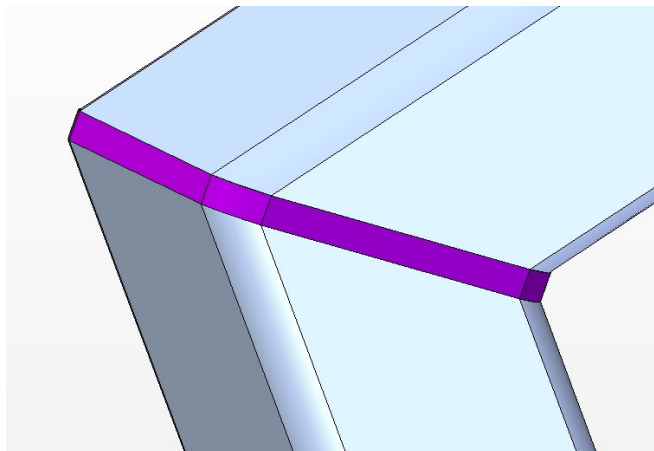


6. Weld the **Rectangular Tubing 40x40x2,9 Cut Lenght 220,00mm** (item 4) to the assembly from the previous picture.

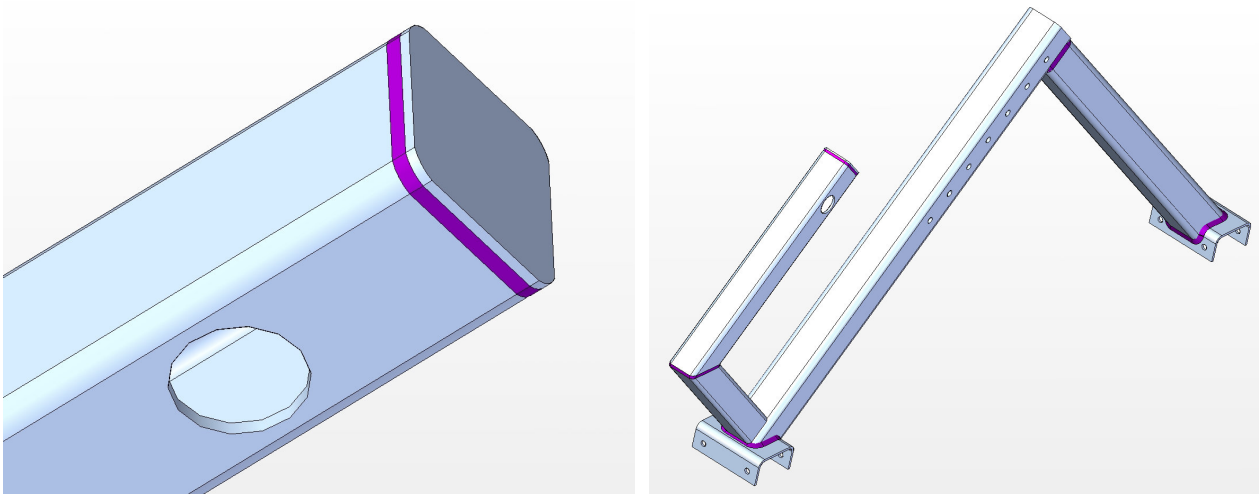




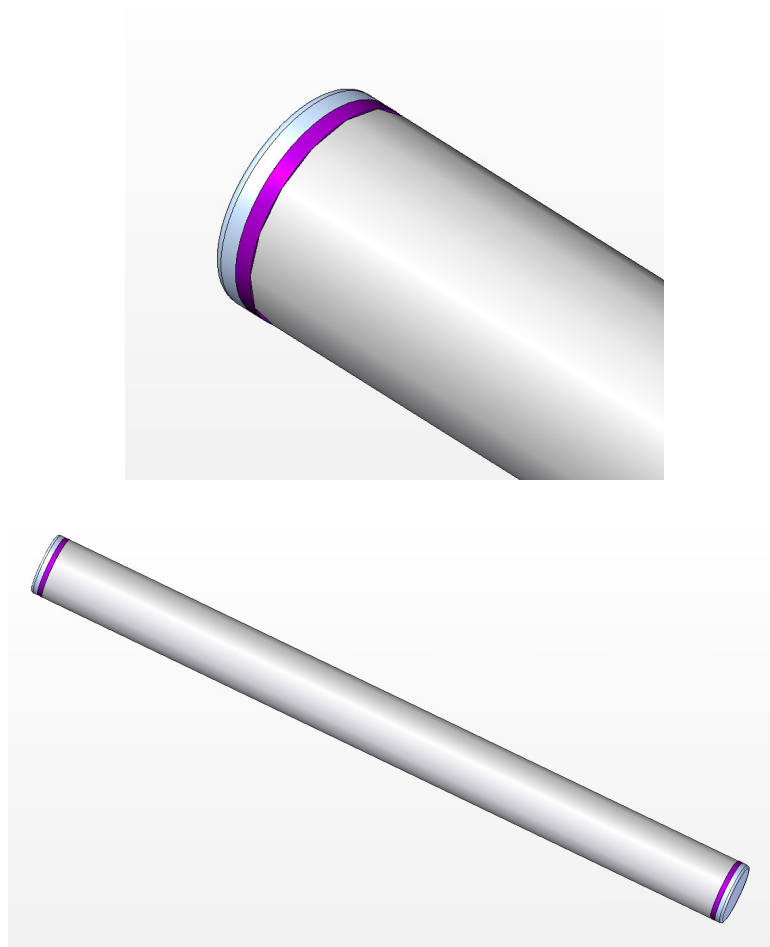
7. On the other end of **Rectangular Tubing 40x40x2,9 Cut Length 220,00mm** (item 4) weld the **Rectangular Tubing 40x40x2,9 Cut Length 320,00mm** (item 5), but first chamfer the edges that needs to be weld.



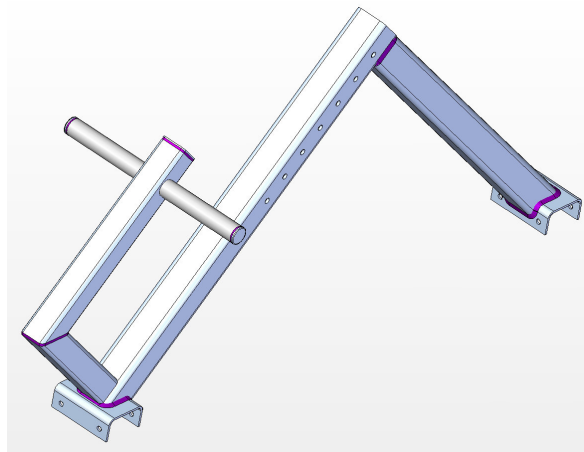
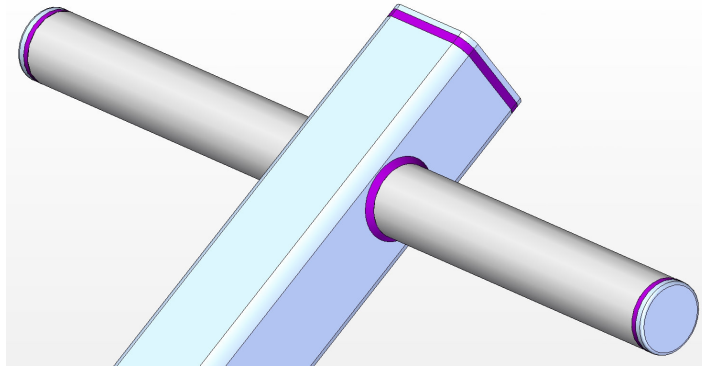
8. On the other end of **Rectangular Tubing 40x40x2,9 Cut Lenght 320,00mm** (item 5) weld the **Cover 40x40** (item 23).



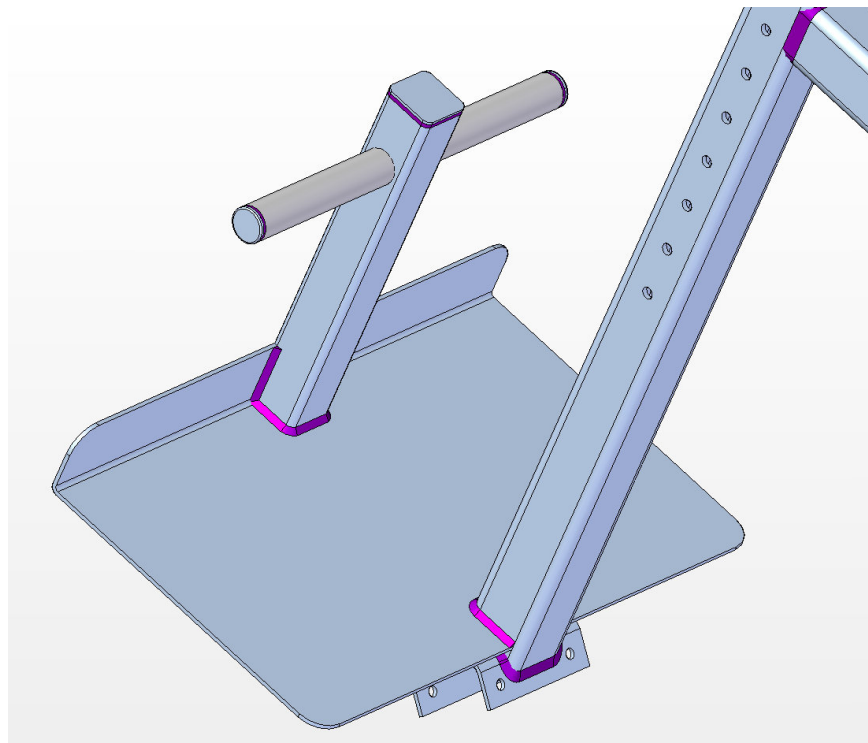
9. Weld **Cover 25,4** (items 22) to the **Pipe 25,4x3,2 Cut Lenght 300,00mm** (item 8).



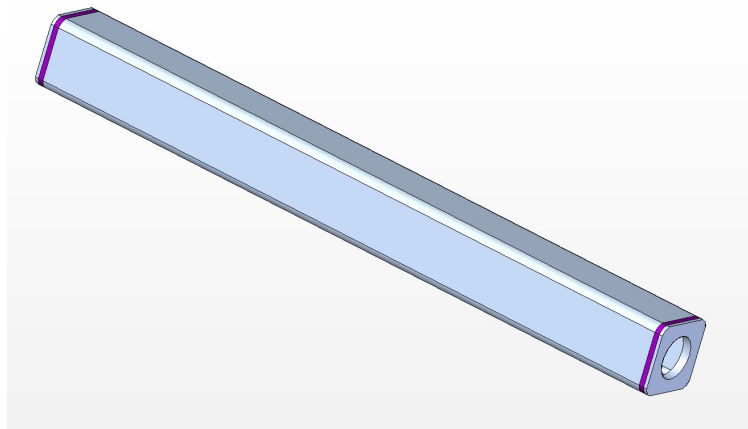
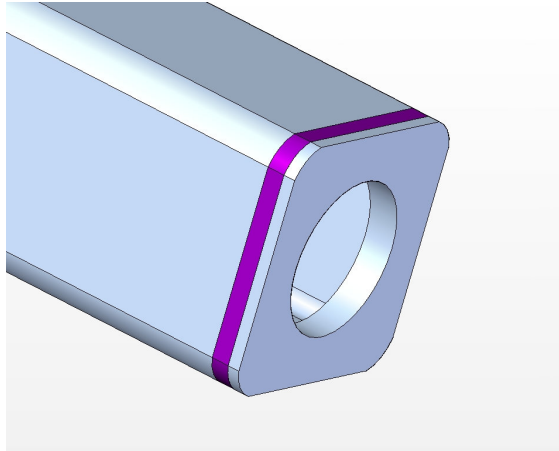
10. Weld the subassembly made in the previous step onto the assembly made in step 8.



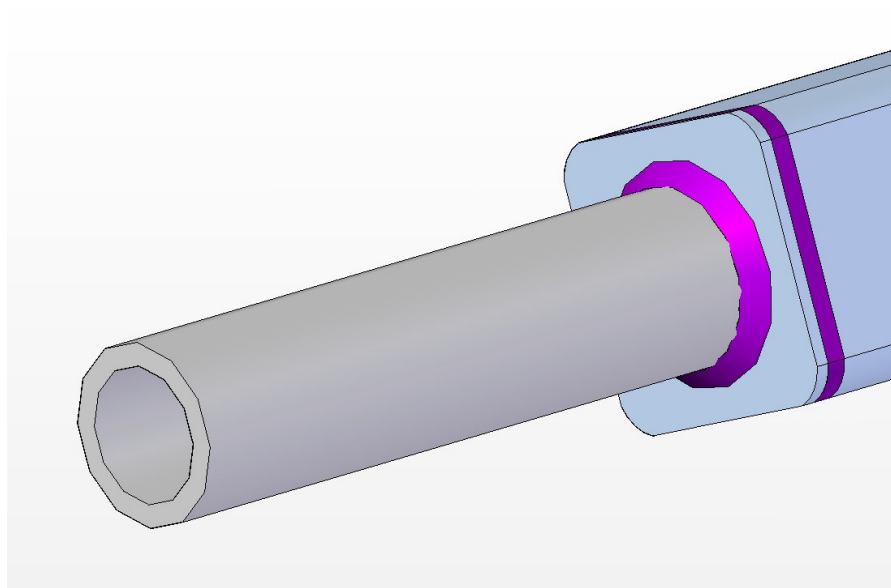
11. Weld the **Sheet Support** (item 25) to the assembly made in the previous step.

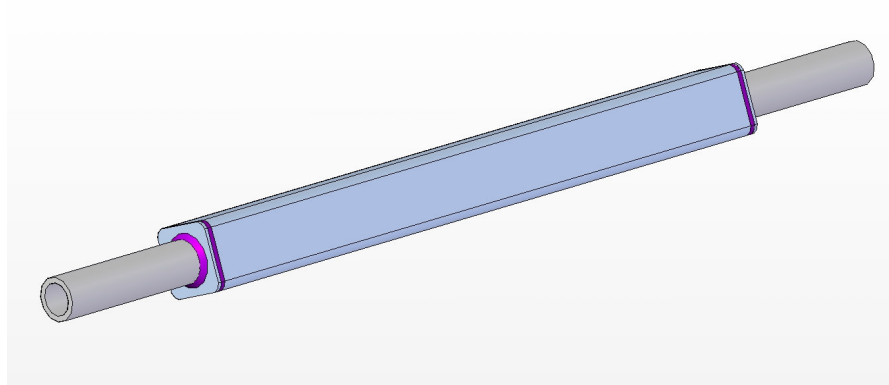


12. Weld the **Cover 40x40 HOLE** (items 13) to the **Rectangular Tubing 40x40x2,9 Cut Lenght 400,00mm** (item 17).

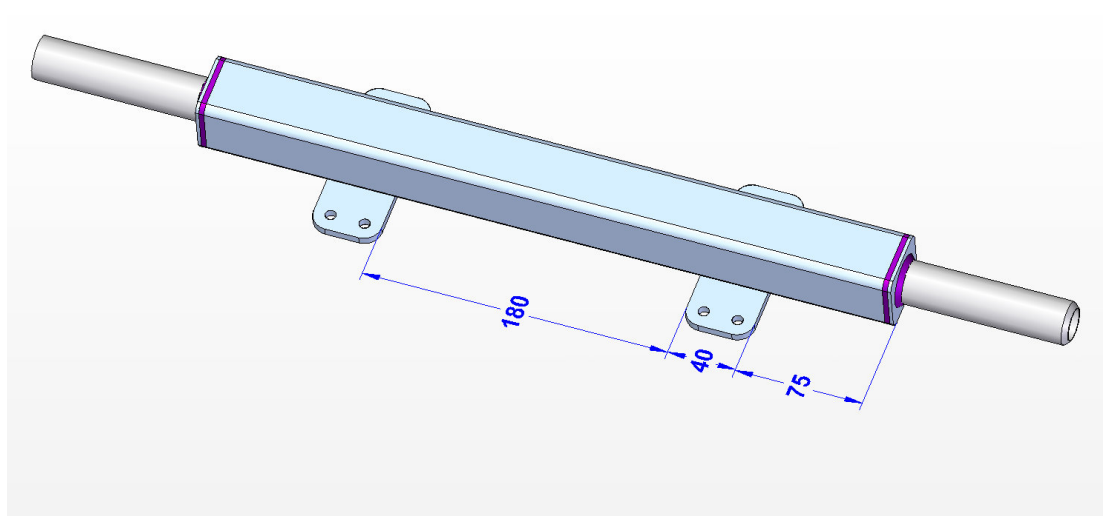


13. Pull the **Pipe 25,4x3,2 Cut Lenght 610,00mm** (item 7) through the holes on subassembly made in the previous step and weld it.

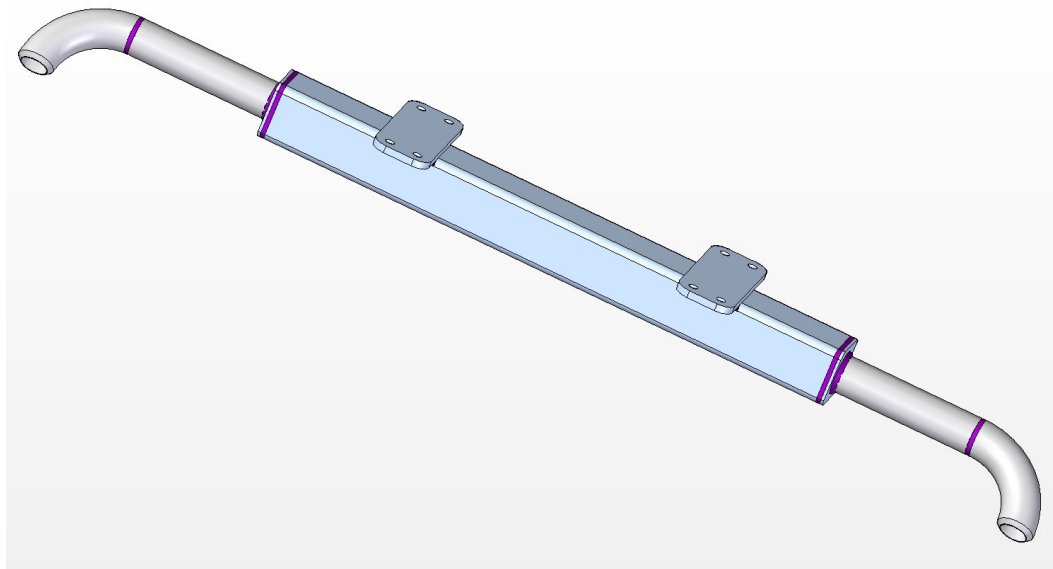
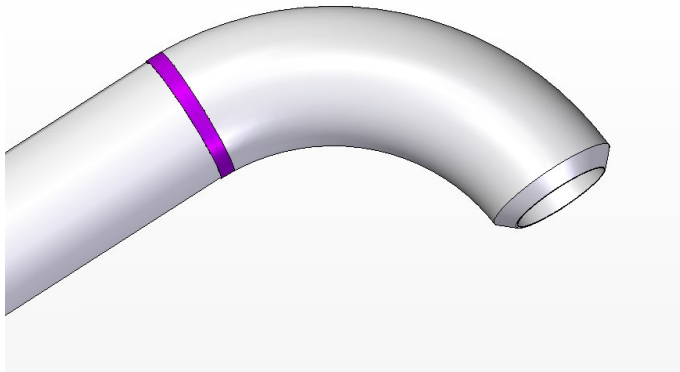
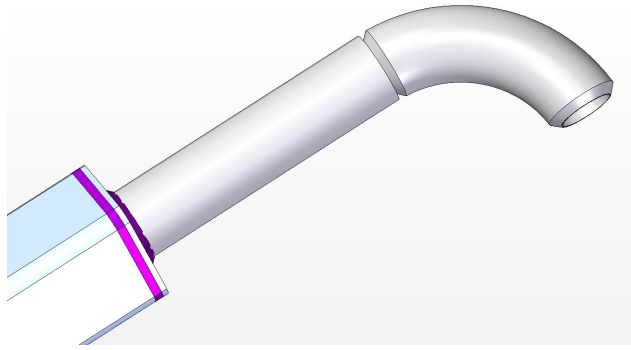




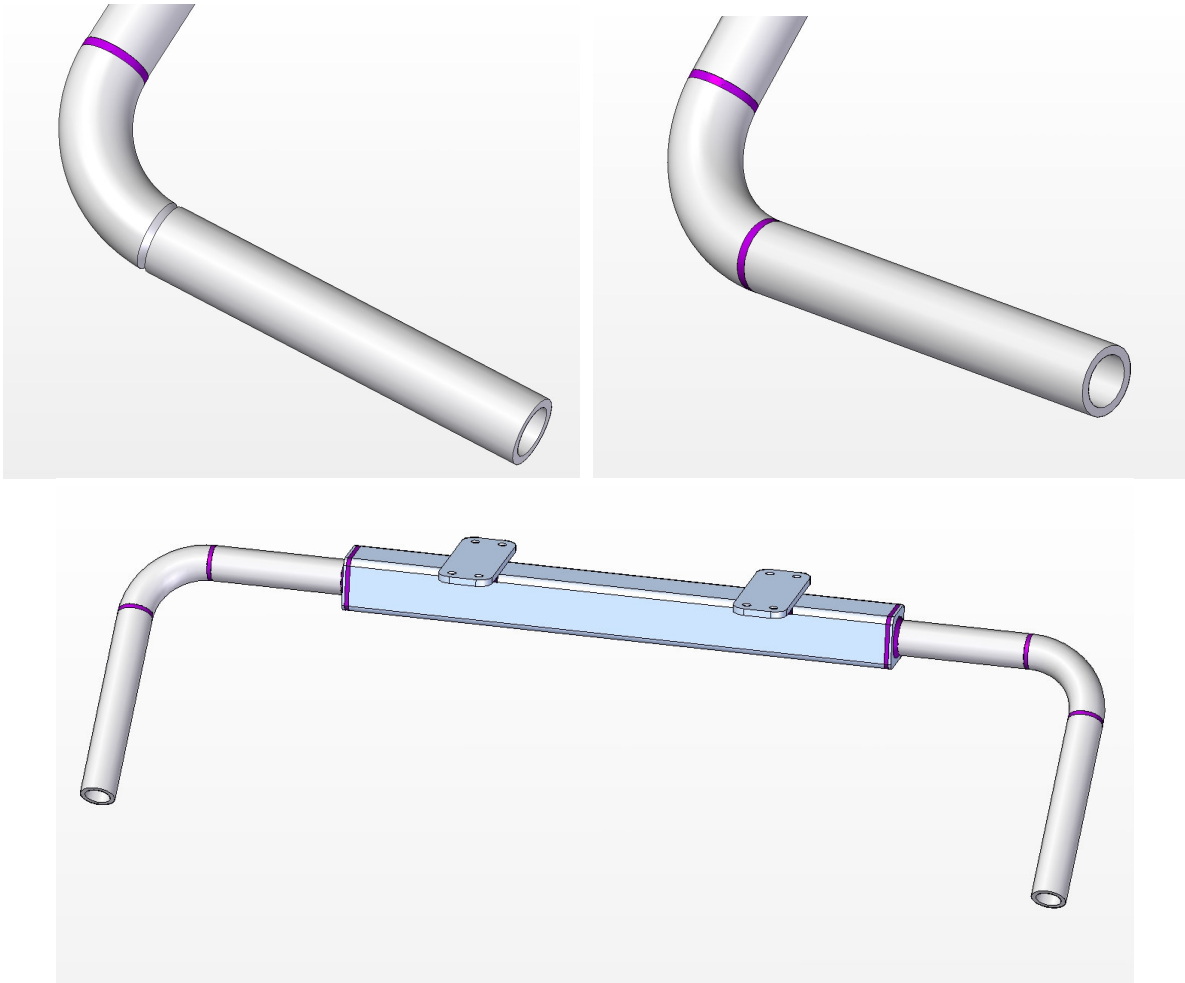
14. Weld the **Plate Holder** (item 14) to the subassembly made in the previous step.



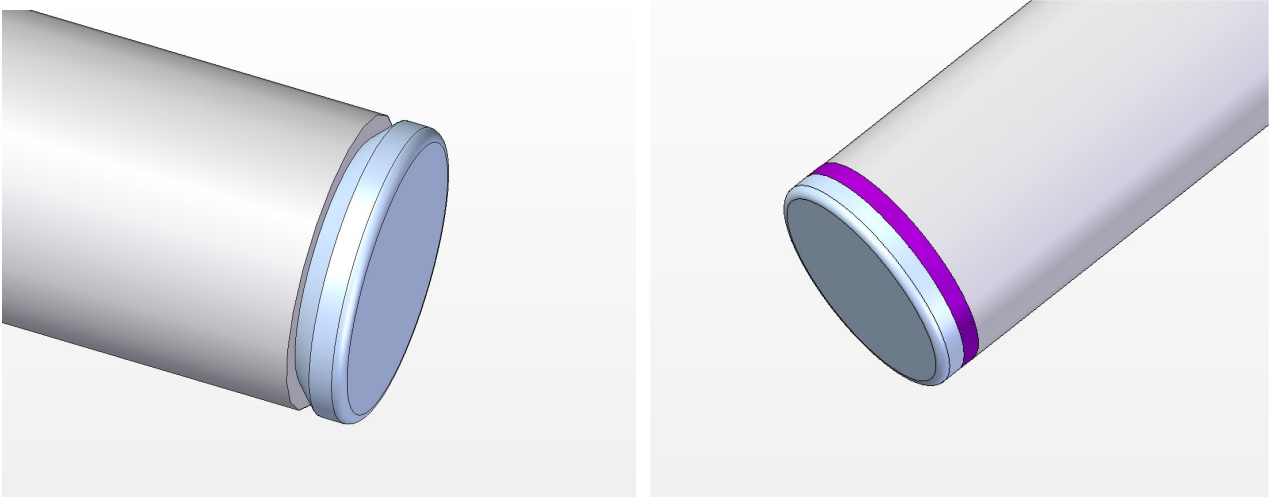
15. Weld the **Pipe 25,4x3,2** (item 9) to the subassembly made in the previous step.

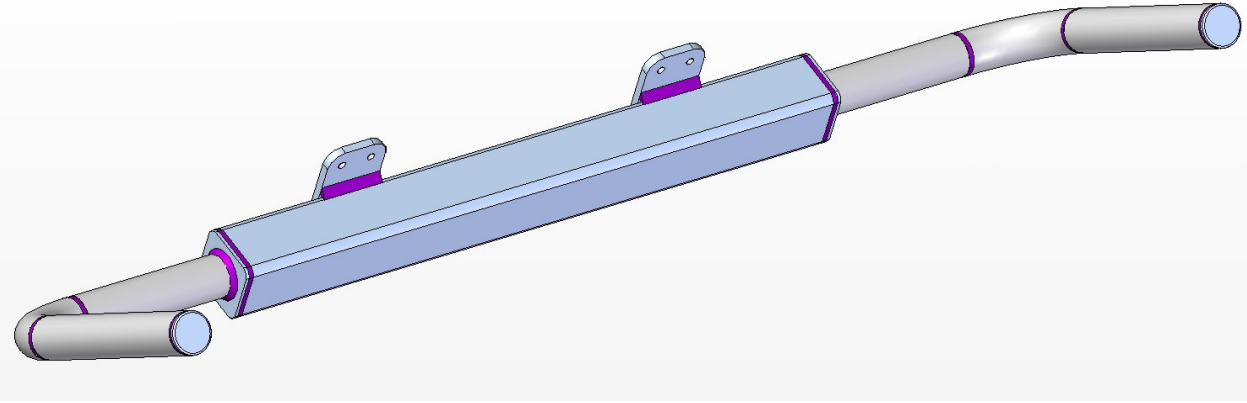


16. Weld the **Pipe 25,4x3,2 Cut Length 150,00mm** (item 6) to the subassembly made in the previous step.

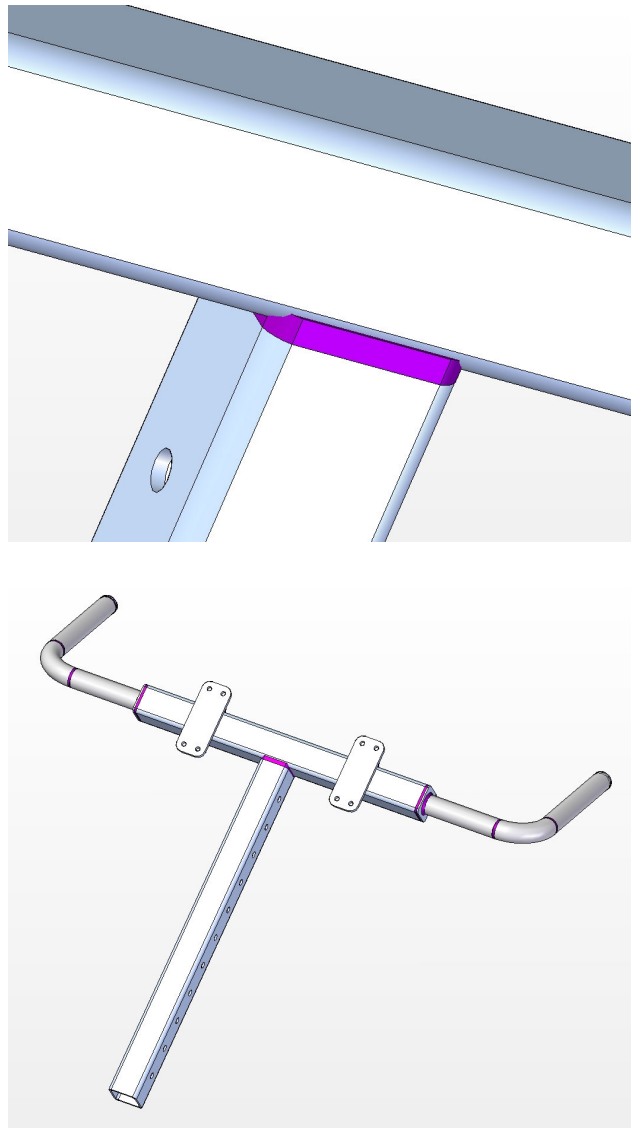


17. Weld the **Cover 25,4** (items 22) to the subassembly made in the previous step.

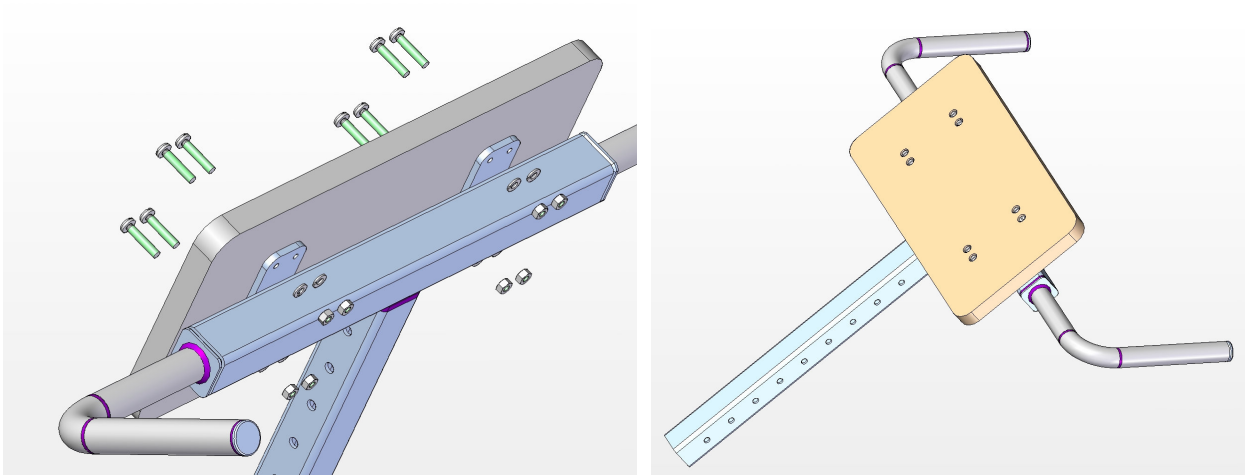




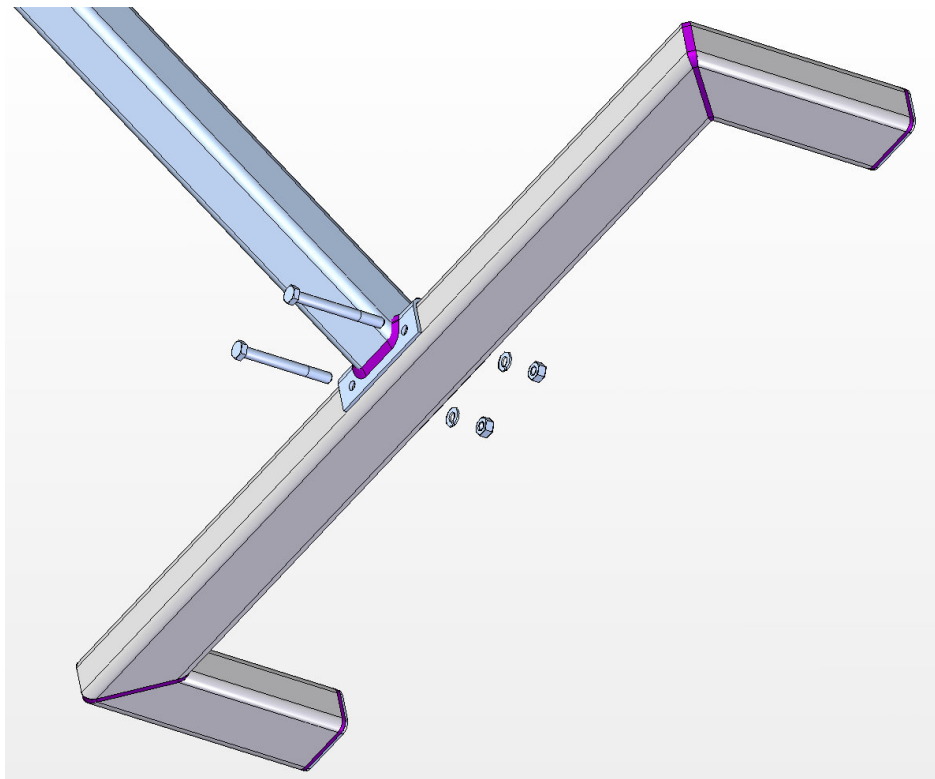
18. Weld the **Rectangular Tubing 40x40x2,9 Cut Lenght 480,00mm** (items 16) to the subassembly made in the previous step.

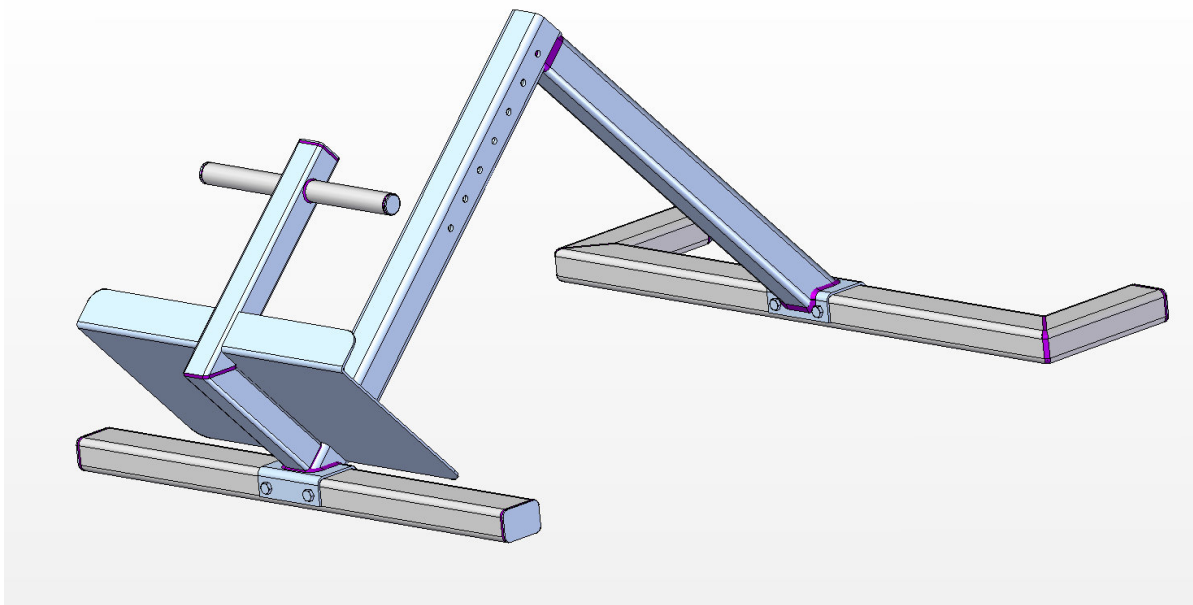
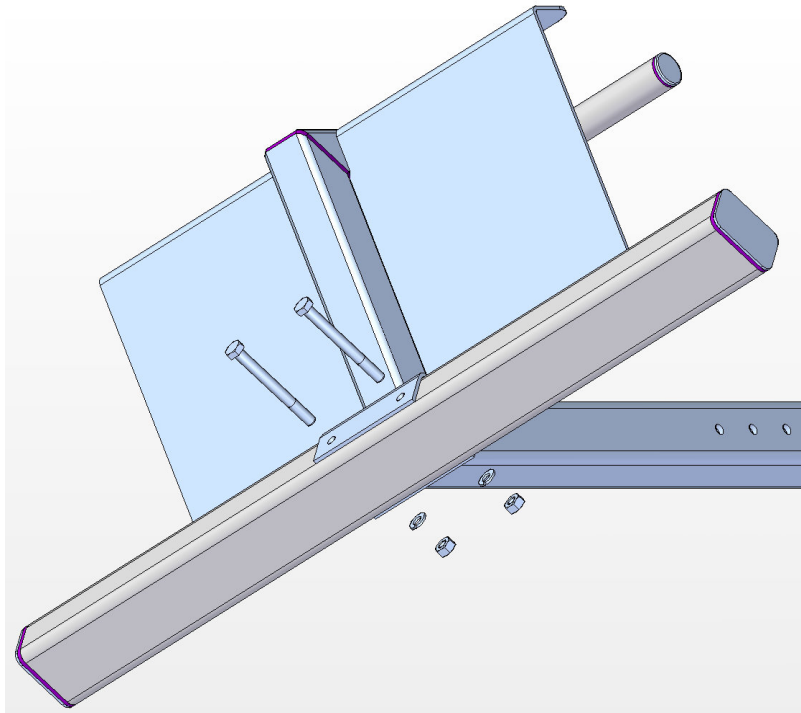


19. Fasten the **Wooden Plate** (item 15) to the subassembly made in the previous step using fasteners: **Slotted Pan Head Screw M6x30** (item 26), **Spring Lock Washer 6** (item 27) and **Hexagon Nut M6** (item 28)



20. Fasten the subassemblies made in step 1 and 2 to the subassembly made in step 5 using fasteners: **Hexagon Head Bolt M8x80** (item 19), **Spring Lock Washer A-8** (item 20) and **Hexagon Nut M8** (item 21).





21. Fasten the subassembly made in step 19 to the assembly made in the previous step using **Pin8h11x60** (item 24).

